BRITAIN'S BEST-SELLING MACINTOSH MAGAZINE

MACFORMAT

ISSUE 27 ■ AUGUST 1995 ■ £3.99 WITH HD DISK

Also available with CD-ROM

GOING PLACES

■ You *can* take it with you – complete mobile Mac guide

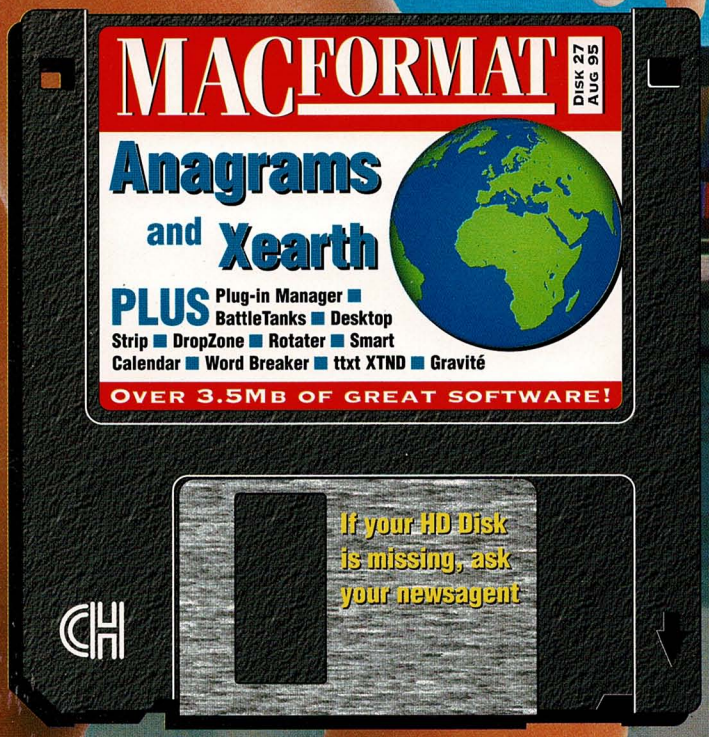
■ Travel the virtual world with our new Internet series

PLUG-INS – How you can make the top Mac programs even better!

PORTABLE PRINTERS road-tested

X-FILES? System secrets revealed

For more disk details – see the back cover


MACFORMAT
DISK 27
AUG 95
Anagrams
and Xearth
PLUS Plug-in Manager ■ BattleTanks ■ Desktop Strip ■ DropZone ■ Rotater ■ Smart Calendar ■ Word Breaker ■ ttxt XTND ■ Gravité
OVER 3.5MB OF GREAT SOFTWARE!
If your HD Disk is missing, ask your newsagent
CH

PLUS How Macs helped make the next big interactive movie ■ Mailmerge in ClarisWorks ■ Mac Answers

Future PUBLISHING
YOUR GUARANTEE OF VALUE

9 770968 330020 08

Superior Software, Service and Support **Softline**

Softline Authorised Dealers
visit these stores...

Bedford Computers
Bedford 01234 271113

Hi-Tec Computer Services
Bradford 01274 626379

Guernsey Computers Ltd
Channel Islands 01481 728 738

Clwyd Computers
Clwyd 01745 814156

- **AppleCentre Dundee**
Dundee 01382 561110

- **AppleCentre Edinburgh**
Edinburgh 0131 557 5995

- **ApplePoint Farnborough**
Farnborough 01252 378378

Tomorrows World
Hull 01482 29583

LCS (North West) Ltd
Kendal 01539 741 777

Five To Twelve
Kingston 0181 974 8900

Stirling Micro Systems Ltd
London NW1 0171 935 5262

- **Chromasonic Computer**
London NW4 0181 203 8989

- **AppleCentre Swanfast**
London SW6 0171 731 0846

- **Micro Anvika Ltd**
London W1 0171 580 6382

AppleCentre West One
London W1 0171 631 5305

CJ Graphics
London W1 0171 437 7022

Tower Records
London W1 0171 439 2500

The Macintosh Centre
London W14 0171 602 9444

AppleCentre Chiswick
London W4 0181 994 7424

AppleCentre Kidderminster
Kidderminster 01562 822 222

Quodport Limited
Manchester 0161 274 3797

AppleCentre Norwich
Norwich 01603 630252

- **AppleCentre Oxford**
Oxford 01865 20 11 00

Absolute Computers
Oxford 01865 53072

AppleCentre Preston
Preston 01772 615 512

- **CIC Software**
Redhill 01737 644829

AppleCentre Romford
Romford 01708 384 242

ApplePoint Slough
Slough 01753 518866

A.T Computers
Tewkesbury 06184 291112

- **Up To Press Ltd**
Leeds 01924 420323

Mail Order
...phone these companies

Gordon Harwood Computers
Derby 01773 836781

MacGold
Scarborough 01723 582100

- **MacLine**
Carshalton 0181 401 1111

MacWarehouse
Freephone 0800 181332

The Mac Zone
Freephone 0800 393696

- **KRCS SelectDIRECT**
Freephone 0800 889944

- In Store Soft•CD demonstrations available

HMV

Aberdeen,Union St
Birmingham, New St
Brighton, Western Rd
Chester, Foregate St
Croydon, North End
Edinburgh, Princes St
Glasgow, Union St
Leicester, High St
London, Level One, Oxford Circus
London, Oxford St
Manchester, Market St
Reading, Oxford Rd

PC WORLD
THE COMPUTER SUPERSTORE

Brentford, Great West Road
Bristol, Cribbs Causeway
Cardiff, Newport Rd
Croydon, Purley Way
Edinburgh, Glasgow Rd
Lakeside, Thurrock
Leeds, Beeston Ring Road
Sprucefield, Hillsborough Rd
Northampton, Towcester Rd
Staples Corner, NW2
Medway, Maidstone Rd
Enfield, Great Cambridge Rd
Manchester, Chester Rd
Aberdeen, Berryden Rd

JOHN LEWIS PARTNERSHIP

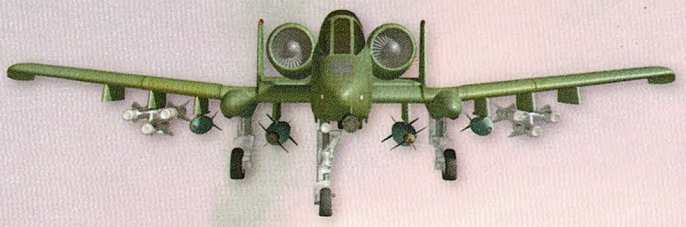
Aberdeen, George St
Brent Cross Shopping Centre
Bristol, Horsefair
Cambridge, St Andrews St
Edinburgh, St James Centre
High Wycombe, Holmers
Nottingham, Victoria Centre
Kingston, Wood St
Liverpool, Bassnet St
London, Oxford St
London, Cavendish Rd
London, Sloane Square
Milton Keynes, Central MK
Newcastle, Eldon Square
Norwich, All Saints Green
Peterborough, Queensgate
Reading, Broad St
Sheffield, Barkers Pool
Southampton, Above Bar
Welwyn Gdn City, Bridge Rd

TEMPO

Barking 0181 591 0091
Basingstoke 01256 51100
Boreham Wood 0181 953 5325
Chingford 0181 524 7511
Crawley 01293 541000
Croydon 0181 649 7221
Edgeware Rd 0181 450 6100
Harlow 0279 454375
Milton Keynes 01908 240210
New Malden 0181 949 3255
London WC1 0171 304 4113
London W8 0171 937 5166
Oxford 01865 747070
Slough 01628 605905
Staples Corner 0181 450 6100
Stevenage 01438 748583
Watford 01923 227116
West Thurrock 01708 866699
Wood Green 0181 888 4241

Product range differs from store to store.
Please check for availability.

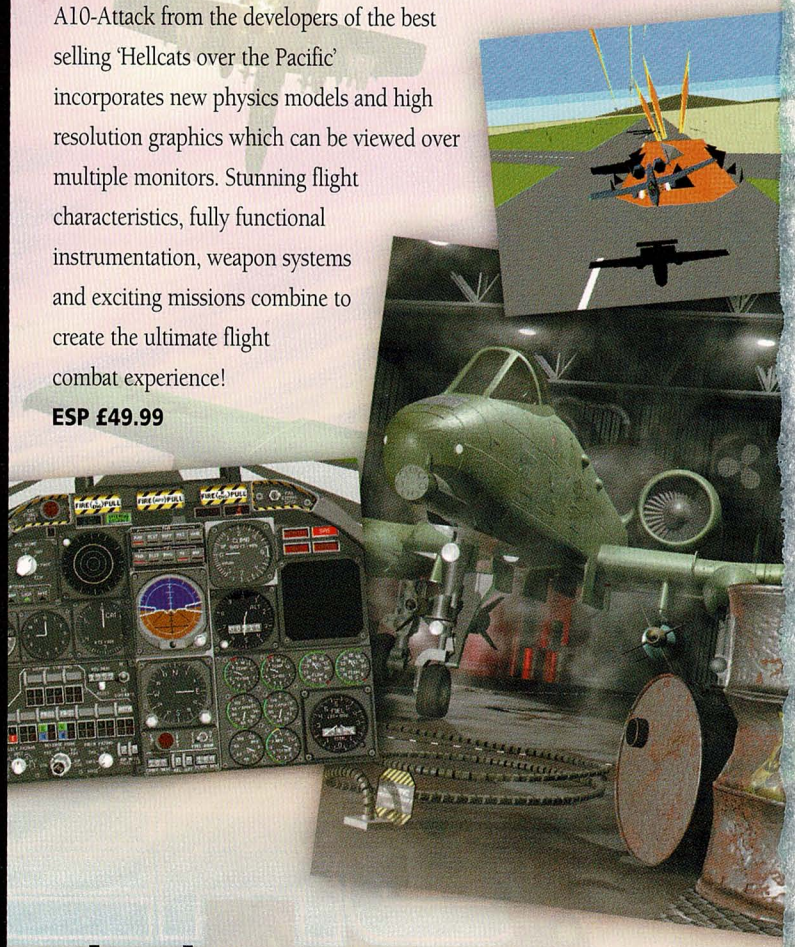
SUPERIOR SOFTWARE — SOFTline — SERVICE AND SUPPORT



A10-ATTACK! has Landed...

Probably the most eagerly awaited flight simulator has arrived. A10-Attack from the developers of the best selling 'Hellcats over the Pacific' incorporates new physics models and high resolution graphics which can be viewed over multiple monitors. Stunning flight characteristics, fully functional instrumentation, weapon systems and exciting missions combine to create the ultimate flight combat experience!

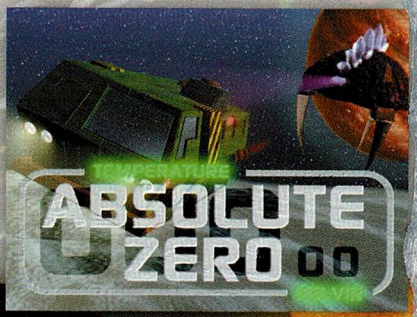
ESP £49.99



Absolute Zero

The first Sci-Fi simulator! Aliens have burst from the core of your ice planet and threaten to destroy the mining colony you call home. To survive you must convert your mining equipment into weapons — and blow them into space! You'll play thirteen different characters, choose from ten uniquely designed vehicles, fight dozens of intense battles and fly over 100 missions, all in glorious texture-mapped 3D. Requires minimum of 040 Processor, PowerPC recommended and double-speed CD drive.

CD ROM ESP £34.03



Game, Set and Match

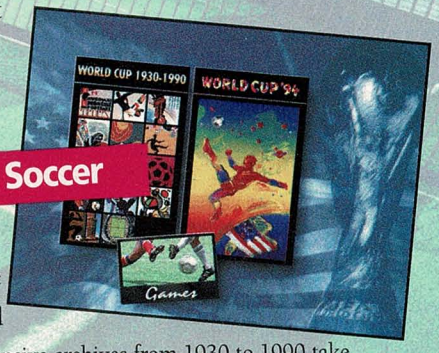
Softline Superior Software, Service and Support

International Tennis Open

Welcome to the world of top class tennis where you could become one of the world's greatest tennis players! Win the Grand Slam, tour Paris, London and New York, playing friendly matches and gruelling tournaments.

You can choose from 4 different types of game: Training, Friendly Match (against the computer), Friendly (against another player) and Tournament. Select 3 levels of game and play on different surfaces: Clay, Grass and Cement.

You'll even hear expert commentators following your game, just like on television! **CD ROM ESP £38.29**



World Cup Multimedia Soccer

A must-have for any football fan! This multimedia reference CD contains all the matches, the teams and the players of the 94 world cup. Comprehensive archives from 1930 to 1990 take you on a spectacular trip through the fabulous moments of world cup history. View the greatest goals ever—85 video clips, over 1000 photos and over 4400 detailed interactive sheets on the players. Finally you can assess your knowledge and try out the Quiz with over 250 questions! **CD ROM ESP £38.29**

Less Active Games!

Triazzle

Journey to the rainforest with the world's first Living Puzzle. Based on the best selling game by Dan Gilbert, Triazzle will entertain the entire family with high-quality graphics inspired by the rainforest. You'll be able to choose from three different backgrounds and animal groups reflecting the environment. There's also a Triazzle Junior option for kids, as well as Star Triazzle for a real challenge.

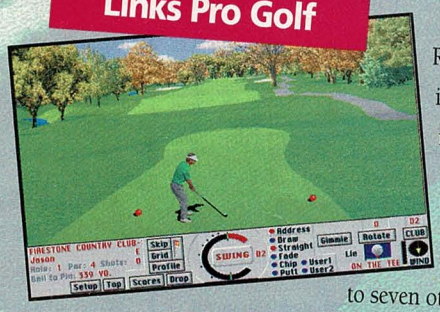
CD ROM or Floppy ESP £21.27

Ishido

It looks so simple. Just empty your pouch of tiles on the game board so they line up by symbol or colour. The more you place, the more points you get. Sound easy? Don't be so sure! Ishido, the challenging solitaire board game—the more you play, the more intriguing it gets. Learn it in minutes and spend hours conquering its depths.

ESP £25.52

Links Pro Golf



Rivalled only by the game itself! Links Pro is the most popular golf program ever made on the PC. The Macintosh version takes full advantage of the superior graphics and sound capabilities, including the ability to network with up to seven other players over AppleTalk. It is fully PowerPC native and if you have AV capabilities you can even use speech recognition!

As standard you play on the world-famous Harbour Town course which is painstaking reproduced in every detail. Once you've exhausted this course you can add on many other courses: Pebble Beach, Firestone, Bighorn, Prairie Dunes, The Belfry and the first in a range of specially designed fantasy courses: Devil's Island.

ESP £39.14

Extra Courses £22.12ea

All prices shown are Estimated Street Prices exclusive of VAT.

Softline Distribution Ltd, Mill House, Mill Lane, Carshalton, Surrey SM5 2WZ
Tel 0181 401 1234 Fax 0181 401 1235 AppleLink UK0037 Net chat@softline.co.uk

All trademarks recognised and are copyright their respective holders. Softline, the Softline Tree and Logo are registered trademarks of Softline Distribution Ltd. All logos and graphics © 1995 Softline Distribution Ltd. Unauthorised use is strictly prohibited.

SUPERIOR SOFTWARE
SOFTline
SERVICE AND SUPPORT

MACFORMAT

ISSUE 27 ■ AUGUST 1995

The Finder

REVIEWS IN THIS ISSUE

Here is a complete alphabetical list of everything reviewed in this issue of MACFORMAT

ADAM	104
Bloodbath	132
Body Park	105
Bodyworks	106
Citizen PN60 Pocket printer	64
The Daedalus Encounter	126
Flashback	130
GCC Writemove 2	65
Hewlett Packard Deskjet 320	66
How Your Body Works	66
Kodak M150 Plus printer	65
Legions	131
Mannesmann Tally MobileWriter PS	65
MusicTime	113
Shareware	104
StoryWorld	102
Top 50 Games Vol 1 and 2	128
The Ultimate Human Body	108
Zig Zag	134

Uh oh! How on earth do you get out of this tricky dilemma?

See page 136

Should you buy a modem or one of these GeoPort adaptors?

See page 95

HOW TO...

Uncover the X-files 79

Sometimes your System folder can seem to be full of mysteries, and Extensions may as well be 'X-files'. In this first part of a new series, we X-pose the dark secrets lurking in your System!

Master the Database Basics 84

Databases can be very useful, and they aren't hard to use. Here's how to create your database in *ClarisWorks*, *FileMaker* or even *Helix Express*.

Mail Merge in ClarisWorks 86

Sending out standard form letters to dozens of people is easy in Claris' top integrated package. Our step-by-step guide shows you how.

HyperCard 89

Apple's versatile multimedia creator can generate an automated shopping list that keeps a running total for you – it's on the cover disk! Here's the details of how it works.

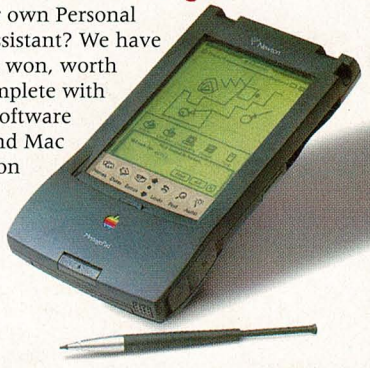
Mac Answers 95

From Mac screen displays that don't look so hot to using foreign accents with your fonts, MACFORMAT's team of experts have the solutions you seek.

WIN! WIN! WIN!

A Newton 110 MessagePad 146

Like your own Personal Digital Assistant? We have two to be won, worth £530, complete with a bonus software bundle and Mac Connection Kit!



REGULARS

Welcome to MACFORMAT 6

Everything you wanted to know about MACFORMAT, even the Macs on our wish lists...

News 19

How a new type of card slot will give you more choice and save you money. Plus: get a Mac for less and take a look at Apple's new colour printers.

What's New 24

Get the low-down on the latest improvements to *ClarisWorks* and see if the Zip Drive is the low-cost, convenient data storage medium you've dreamt of.

MacroScope: Behind the News 28

Find out how video artists are making good use of the Mac in our special exhibition report, and learn the medical community's diagnosis of multimedia.

Apple Talk: Letters 36

Your views on everything in the Mac universe, from the cost of PowerPC upgrades, Internet access and CD-ROMs to 'anti-Japanese' games...

Soapbox: 'When will it stop?' 121

In the race to switch to PowerPC, Apple are leaving ordinary people behind, says a MACFORMAT reader.

Special Reader Offers 122

Get on the Internet with our modem, video and book offers – with plenty more bargains besides.

Back Issues 124

Fill in the gaps in your MACFORMAT collection.

Gamebusters 136

Your quest to crack *The Secret Of Monkey Island* nears its conclusion. Plus help for *Marathon* addicts who, um, aren't very good at *Marathon*.

Free Reader Ads 138

Bargains galore plus local user group contacts.

Buying Advice 141

Whether shopping in person or by mail, make sure you know your rights before you buy.

Dilbert 141

No use trying to pull the wool over *this* employee's eyes...

Next Month 145

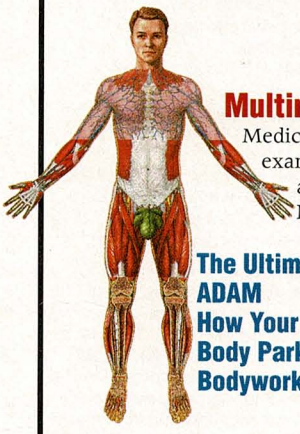
Coming soon! (A statement of intention, made Without Prejudice and pro publico bono, subject to Acts of God and force majeur...)

REVIEWS

Portable Printers 63
As part of this issue's Going Places cover feature, we test the ultimate in ease-of-use – printers that are light enough to carry around with your PowerBook, but still offer superb printing quality. We review and rate five of the handiest you can get.

Kodak Diconix M150+ 64
Hewlett Packard DeskWriter 320 64
Citizen PN60 Pocket printer 65
GCC WriteMove II 65
Mannesman Tally MobileWriterPS 66

StoryWorld 102
Not just nursery rhymes on CD-ROM, but a multi-lingual learning tool for non English speakers. Ideal if your kids' first language is Japanese...



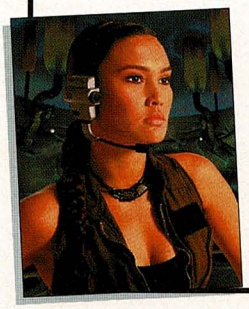
Multimedia: the Body
Medical science made easy, as we examine a batch of CD-ROMs all about the human body. Nurse, the screens, please!

The Ultimate Human Body 104
ADAM 105
How Your Body Works 106
Body Park 107
Bodyworks 108

Music: MusicTime 113
Want to make music without buying all the costly equipment? This program could be the answer...

Shareware Heaven 117
The cream of this month's low-cost and no-cost software from the Internet includes a dose of pure violence and a top-drawer blaster.

Games Reviews
A mixed bag of fun this issue, as we rate everything from a glossy interactive movie to a simple word game. But which one comes out on top?



The Daedalus Encounter 126
Top 50, Vol 1 and 2 128
Flashback 130
Legions 131
Bloodbath 132
Zig-Zag 134

FEATURES

GOING PLACES

43

On the move, or on holiday? Here's how you can take a Mac around the world with you – or, if you prefer, have the world come to you...

Wired World 44
Get to grips with the Internet in the first part of a new MACFORMAT series.

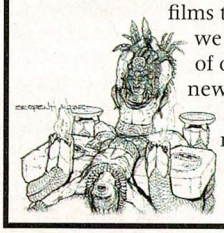
Portable Macs 49
Need to work while on the move, or just fancy taking a Mac to the beach? Here's the details of the kit you can take with you:
- The full current PowerBook and Duo range
- The Newton MessagePad and other add-ons
- Portable Macs of the future...

Portables in education 60
How pupils across the UK learn with PowerBooks.

Plug-Ins! 70
Is your favourite graphics or DTP package missing the one feature you need? You may be able to add it on using these 'mini-programs'! Here's how they work, what they can do – and 100s to try out on our CD!

Can *Flashback* improve on its predecessor *Another World*?
See page 130

Buried in Time Preview 30
With some games looking more like Hollywood films than the shoot-'em-ups of yore, we go behind-the-scenes to the set of one of the new breed of interactive movies.

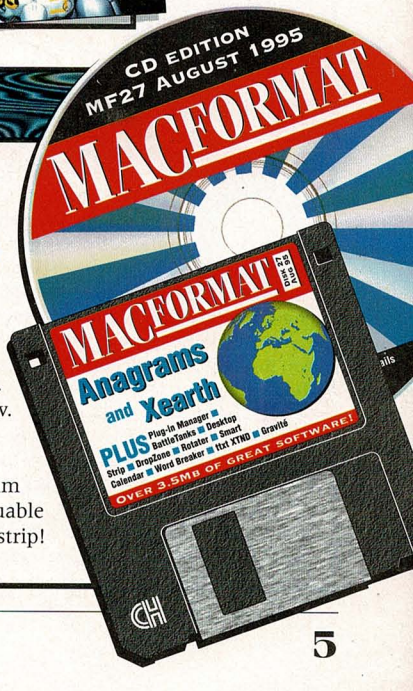


COVER DISKS

MACFORMAT comes with a choice of CD-ROM or high-density disk every month:

Your CD-ROM 8
All the utilities you need to explore the Internet (except MacTCP and a service provider!), PowerBook utilities, 100s of Plug-ins and XTensions. Plus: official updates of System 7.5.1 and QuickDraw GX, the latest shareware and everything below.

Your Cover Disk 12
A creative 3D program, a hilarious anagram generator, a testing word game and invaluable utilities – even a PowerBook-like control strip!



Welcome to MACFORMAT

Everything you never dared to ask about MACFORMAT... and a few things you never needed to know, probably.

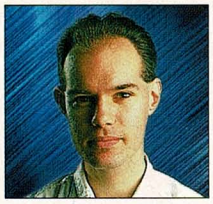
ABOUT OUR WRITERS

ALEX SUMMERSBY

MACFORMAT's editor learned what he knows about Macs by using them and reading all he could find about them – including details of brilliant Macs he could only lust after. He still cries over the PowerMac 7100DL he couldn't quite afford.

DEREK SMITH

Our technical whizz kid used to run a room full of Macs for a school in Norfolk. Now, in keeping with his Action Man image (left), he aspires to a PowerMac PowerBook so, he says, he can enter the train numbers directly into his database...



RICHARD HILL

MACFORMAT's multimedia man cut his computing teeth on an Atari ST with 4Mb of RAM and *two* floppy drives. Asked what he dreams about, he modestly says 'Just a PowerMac of some description.' Bound to be an improvement all right.

ROD LAWTON

Our *HyperCard* expert has been drooling over the new all-in-one Performa 5200, but he says he doesn't really mind what Mac he has so long as it runs System 7.5, because that's scriptable and he's now getting into AppleScript...

MARCUS DYSON

Back when he was one of Future Publishing's art editors, Marcus had to beg for a Quadra. Now he works as a graphic designer for a top software house, and they give him anything he asks for. Must be tough having nothing to hope for.

SIZE DOESN'T COUNT...

Don't you hate it when you turn up at your newsagent with just enough money to buy your favourite magazine, only to find that the price has gone up? Unfortunately the cost of paper is rising worldwide, so more and more magazines are having to raise their prices, or cut their page counts, or both. Our enlightened Publisher thought we'd try another way. If you've seen MACFORMAT before, you might have noticed that this issue is narrower – by trimming some 22mm off the width of each page, we save enough paper at least to put off the evil day. Plus, being the standard A4 size means MACFORMAT is easier for distributors and newsagents to handle, and even a little cheaper to mail. So thanks for buying this issue, and stick with us – these are the only corners we're cutting! We are still committed to keeping MACFORMAT the Mac magazine you want to read. ALEX SUMMERSBY

ABOUT MACFORMAT

Welcome again to MACFORMAT, Britain's best-selling Mac magazine! Whether you're a veteran or a novice, we'll help you get more out of your Macintosh, whatever you use it for!

Every month, MACFORMAT brings you tips, techniques and tutorials covering the range of Mac applications, from graphics, DTP, education, spreadsheets and databases to music, comms and games. This month we help you sort out your System, discover the Internet, get to grips with *ClarisWorks*, and more.

We'll bring you features about exciting Mac developments and novel uses, accompanied by cover disk programs whenever possible, so you can discover what your machine can do and try things you haven't tried before – like seeing what Plug-ins can do for you.

We'll keep you up-to-date with all the Mac-related news, and also keep you informed about the wider issues, the people behind the headlines and the stories behind the stories. This issue, we explore some of the uses that medical professionals are finding for multimedia, and review some 'body-related' titles as well!

We'll bring you authoritative reviews of interesting and affordable products, with clear buying recommendations. This issue there's everything from the whole range of portable Mac options to language learning programs, plus the latest games, a budget music package and the best new low-cost and no-cost software hot off the Internet.

MACFORMAT does not review demos or unfinished programs. We review only the finished products you could buy yourself, to help you decide whether to buy or not.

MACFORMAT's covermounted disks and CD-ROMs offer you demos so you can try software before you buy, useful utilities (specially chosen to complement features in the magazine), selected shareware programs, games, readers' contributions and more, every month. This issue's details start page 8.

Editorial enquiries:
MACFORMAT, Future Publishing Ltd, 30 Monmouth Street, Bath BA1 2BW or tel: 01225 442244, fax: 01225 446019
E-mail: macformat@futurenet.co.uk or **macformat@cix.compulink.co.uk**
AppleLink: MacFormat
FutureNet: MACFORMAT is on-line as part of FutureNet. Accessing it is free – just point your World Wide Web browser at: **http://www.futurenet.co.uk/**
Advertising enquiries:
Jackie Garford, tel: 01225 442244
Subscription enquiries:
Subscriptions, Future Publishing, FREEPOST (BS4900), Somerton, Somerset TA11 6BR
(No stamp needed if you're posting in the UK)
Tel: 01225 822510 (8.45am–4.30pm)
Fax: 01458 274378 (24 hours)
E-mail: subs@futurenet.co.uk

A word about prices...

We try to ensure that all prices quoted in editorial pages in MACFORMAT are accurate at the time of going to press, and they are all *inclusive* of UK Value Added Tax at 17.5%. However, this may not necessarily be the case with prices appearing in advertisements, so we recommend that you always contact advertisers before ordering to confirm prices and availability. See page 141 for some helpful buying advice.

Entire contents Copyright © 1995 Future Publishing Ltd. All rights reserved.

ABOUT OUR REVIEWS

Every MACFORMAT review is designed to inform you in detail what you'd be getting if you bought the product and help you decide whether it's worth your money. It tells you the essentials, without jargon. MACFORMAT reviews only finished products, and we rate them on this scale:

- 80+% means excellent.
- 70+% means well worthwhile, though not really outstanding in its market.
- 60+% means good, but with a few shortcomings or some limitations.
- 50+% means acceptable but flawed.
- A rating below 50% means you should think carefully before parting with your money.

The MACFORMAT Classic Award

If a product earns a rating of 90% or more, we'll give it a MACFORMAT Classic Award. This means what it says: we judge the product to be a classic, a standard-setter of its type, something really special.

- We make every effort to verify all the information we publish, but products and prices do change. We always quote list prices (RRPs), but street prices do vary. Shop around, and check with the supplier before buying to make sure that the product you're considering will meet your needs. MACFORMAT cannot accept responsibility for any errors or omissions or for any losses that may arise as a result, but it is our policy to correct any errors of fact whenever we possibly can.
- MACFORMAT welcomes contributions for publication but we regret that we cannot return them. Submissions are accepted on the basis of a licence of copyright to Future Publishing Ltd, exclusive for six months – call for details. Any correspondence sent to our editorial address will be considered for publication unless you specifically state otherwise, and we reserve the right to edit published letters for reasons of space, clarity or legality.
- We are very busy, so we can't reply to letters personally, even if you include an SAE, or to faxes or e-mail. Nor can we answer technical queries over the phone – sorry!

CLARIS

Explore the amazing new world of the Internet for FREE with ClarisWorks

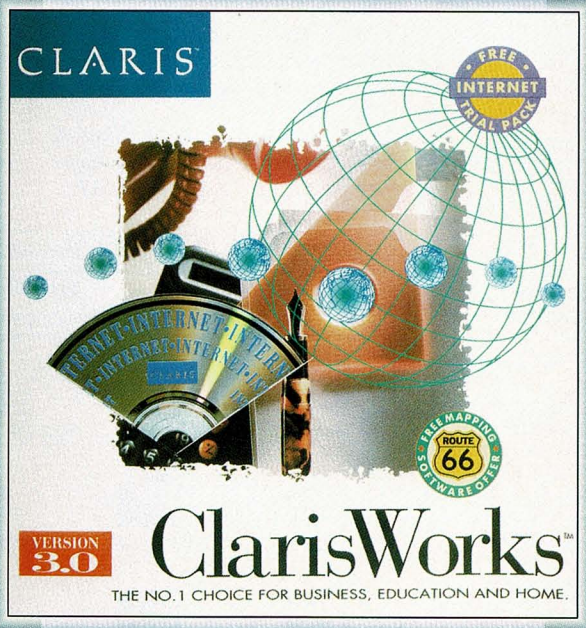
FREE INTERNET TRIAL PACK

FREE MAPPING ROUTE 66 SOFTWARE OFFER

Far beyond word processing, spreadsheets and database management... over and above presentation and graphics... ClarisWorks v.3.0 now offers you the opportunity to explore a whole new world of information, education and entertainment!

With the FREE Internet CD included in this special copy of ClarisWorks v.3.0, you have all the software you need to begin a fabulous voyage of discovery on the Internet.

Now, not only is ClarisWorks the easy-to-use, all-in-one answer for business, home and education, but with this special offer you get the chance to 'meet' and talk to hundreds of people and businesses all around the world, find and share information about thousands of topics, shop for goods, play the latest games... the possibilities are endless.



Claris, together with its Internet partners, are offering 28 days FREE Internet connection* in this ClarisWorks special offer. The FREE CD also contains 500 full-colour clip arts and we'll send you a FREE copy of Route 66 mapping software when we receive your registration card.

Call now to order your special copy of ClarisWorks v.3.0, which at the low price of **£129.00** (ex VAT) - won't cost you the earth.

Word Processing
Spreadsheets
Database
Presentations
Draw/Paint

ClarisWorks has everything you need - and more

Offer ends 30.09.95

MICROSOFT® WINDOWS™ COMPATIBLE

Available for Windows or Macintosh

To order, call any of these numbers now:

MicroWarehouse
0800 181 000
MacWarehouse
0800 181 332
Computer Warehouse
0171 724 4104
Crown
01704 895 815
Dabs Direct
01772 623281
Legal Computers
0171 630 5858
ACWL
0181 573 7797
MacLine
0181 410 1111
ME Electronics
01734 500551
Software Warehouse
01675 466467
Thames Valley Systems
01734 503 500
MacZone
0800 393 696
Jigsaw Systems
0115 942 2990

Also available from:
PC World
and selected branches of:
John Lewis Partnership

© 1995 Claris Corporation. All rights reserved. Claris, ClarisWorks are trademarks of Claris Corporation. All other trademarks or brand names are the property of their respective holders. All prices are subject to change without notice.

* Claris guarantees 28 days free connection. Conditions of access may vary per country. Call charges not included. A modem is required for connection to the Internet.

Over 630 megabytes of top shareware and demos on this amazing CD. From silly games to plug-ins, Derek Smith tells all.

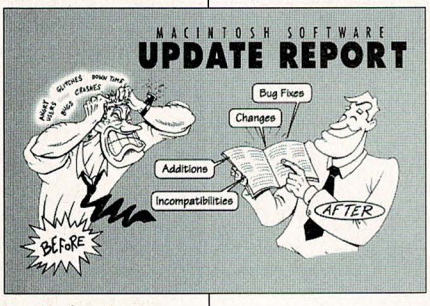
We have several special software round ups this month, including a variety of plug-ins for *Photoshop* and *QuarkXPress*. You'll also find the definitive resource of PowerBook and Newton shareware. If you use System 7.5, then we have Apple's update 1, as well as QuickDraw GX 1.1.2. Let's take a close look at what's on the CD...

- Highlights: aliases of the best bits of this fabulous CD to help get you started more quickly.
- Floppy: contains everything that's on the floppy disk, plus a bit more.
- Shareware City: all the best shareware released on the Internet over the last month.
- Shareware in MACFORMAT: most of the programs reviewed in our shareware section, starting on page 117.
- Demos: interactive and rolling demos of various software featured in MACFORMAT.
- Plug-ins: hundreds of plug-ins for many major programs.
- Portables: a collection of shareware for PowerBooks and Newtons.
- Internet software: all the utilities you need to cruise the Internet. See our new series, starting on page 43.
- System 7.5 Update 1: Apple's official update to System 7.5.
- QuickDraw GX 1.1.2: the latest version of Apple's QuickDraw GX.
- 3D Graphics: all the graphics shown in our recent 3D series.
- Mac Update Report: magazine and Web site about bugs and updates of Mac software.
- Readers' Corner: your space on the CD for art and shareware.
- Resources: includes QuickTime and other utilities.

Mac Update Report

Magazine

Requires: any Mac



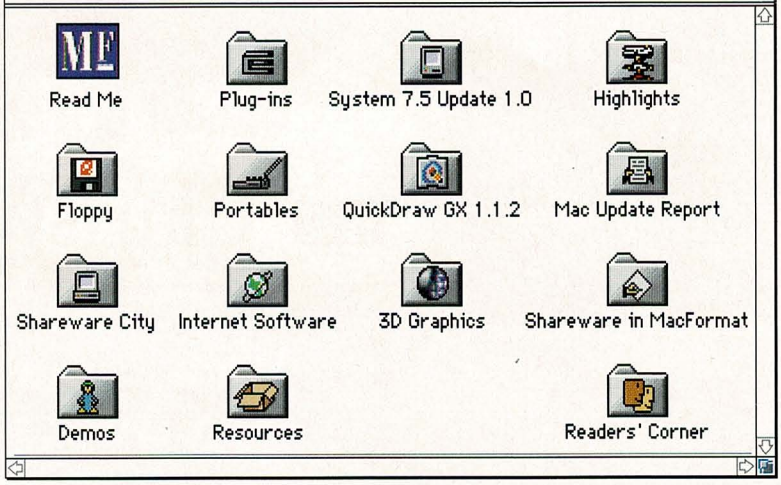
The Mac may be the easiest computer to use, but we all need a little help with bugs. This magazine offers hope.

Mac Update Report is a US based magazine detailing bug reports and new version releases of all major software. They publish a bi-monthly newsletter, and we have an edition from earlier this year so you can see if it's the kind of thing you have been looking for. There's also a link to their Web site for those with Internet access.

MACFORMAT 27

634.3Mb in disk

Over 8,000 files of Demos, Shareware, Graphics, Utilities and much, much more

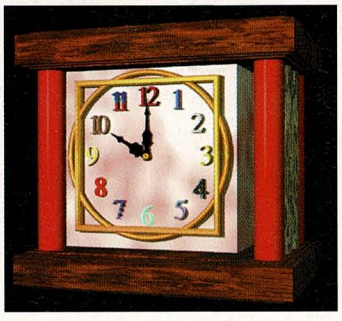


3D Graphics

Graphic files

Requires: a graphics program

MACFORMAT's series on 3D graphics has now come to its conclusion and will be replaced with a series on image manipulation starting next issue (MACFORMAT 28). To keep you busy until then, we have all the graphics used in that series, including many of the 3D models that can be opened and edited with most 3D graphics programs.



Not only do we have pictures like this on the CD, but we also have the 3D models of them for you to examine.

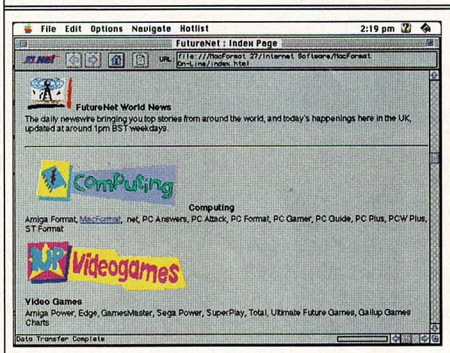
FLOPPY OR CD?

MACFORMAT is available in two editions every month: one with a CD-ROM and one with a high-density floppy disk. The CD-ROM contains all the software on these pages in a folder called Floppy.

Internet Software

Utilities

Requires: Internet connection



Sample the on-line world of FutureNet and browse the Web. Remarkably, you don't even need a modem.

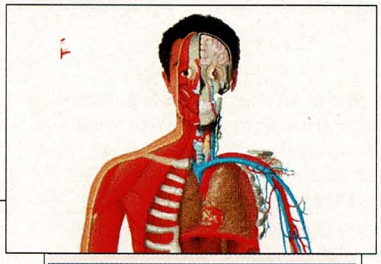
To coincide with the start of our Internet series in MACFORMAT, we bring you a useful collection of Internet shareware to cruise all aspects of the Net, including a Web browser, mail program, and newsgroup viewer. You do need an Internet provider, but if you're not sure about all that, see our guide starting on page 43. Of course, your first port of call should be our own Web site on FutureNet, which features all the Future Publishing magazines, covering everything from Macs to PCs to bicycles and needlecraft. The MACFORMAT page features some handy links to Mac resource sites, which we'll keep up-to-date.

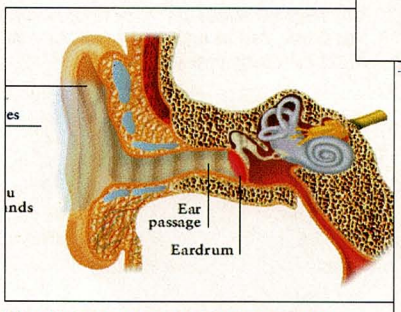
A.D.A.M and Ultimate Human Body

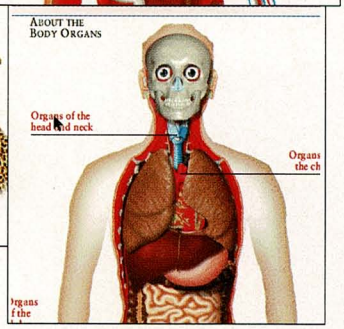
Body Demos

Requires: Colour Mac, 1Mb free RAM

Ever wondered what goes on inside you? Well here we have two rolling demos of *A.D.A.M.* and *Ultimate Human Body*. Sometimes gruesome, always interesting, these take you through the programs giving you a clear idea of the quality of the full product. Turn to our multimedia section to read the reviews.







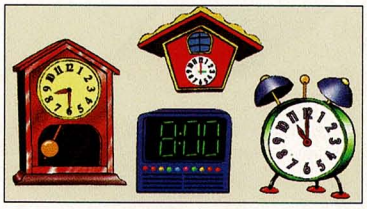
Why did the skeleton hate parties so much? Because he had no body to dance with! Ha ha ha... [*Oh shut up – Ed.*]

Story World 2

Education demo

Requires: colour Mac, 3Mb free RAM

Story World is a wonderful education title designed to teach children the English language. In fact the program speaks no less than 18 languages, so it may be the ideal time to polish up your French. This demo has been specially created for MACFORMAT and contains a very special price offer to readers!



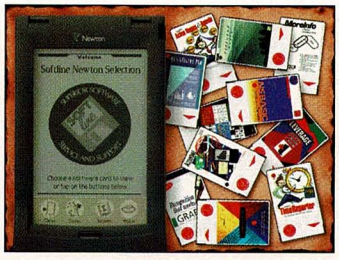
EuroTalk, the British creators of this program, recently won an export award for their products. Hurrah for little Blighty.

Portable

Shareware

Requires: PowerBook or Newton

To complement our cover feature, we are proud to bring you a definitive collection of shareware programs for Apple's range of portable PowerBooks and Newtons. Everything is there from utilities to games to applications. You *can* take it with you!



We have an interactive presentation from Softline featuring demos of loads of Newton products for you to drool over.

PowerPete

Game

Requires: any Mac

The plot for this game is ridiculous. You star as PowerPete, a toy whose task it is to rescue the Fuzzie Bunnies, dumb creatures who are in danger. Beyond all this is a very decent shoot-'em-up action game with big bright sprites and addictive gameplay. The demo contains the complete first level, so load it up and rescue those bunnies.

Stop talking, you macho idiot, that big gorilla is about to rip your plastic head off.

System 7.5 Update 1

System Software

Requires: any Mac running System 7.5

System 7.5 is the current version of Apple's System software, although it has recently been tweaked to version 7.5.1. This will update version 7.5 to 7.5.1, providing several bug fixes and giving new features, including: the ability to turn your Mac off with the Power On key, more PowerMac native code, and the Launcher now supports drag and drop. It also solves the problem of Macs not ejecting CDs when file sharing is turned on.

QuickDraw GX 1.1.2

System software

Requires: any Mac running System 7.5

This is the latest version of Apple's QuickDraw technology. It enables several new functions such as the ability to create documents that can be opened by anyone else who has QuickDraw GX, even if they don't have the same program or even the same fonts! A word of warning though, QuickDraw GX does require plenty of RAM, and we don't recommend it unless you have more than 8Mb.

VIRUS OR NOT?

MACFORMAT cover CDs often cause virus checkers to warn of unusual resources on the disc. Don't worry, this is quite normal. It's caused by the System 6 Desktop that the CD mastering process creates so that older Macs can use the CD.

YOUR ARTWORK

If you would like to submit any software or artwork for the Readers' Corner section of the CD, send it on floppy or SyQuest to the Disk Editor at the address on page 6.

Readers' Corner

Your contributions

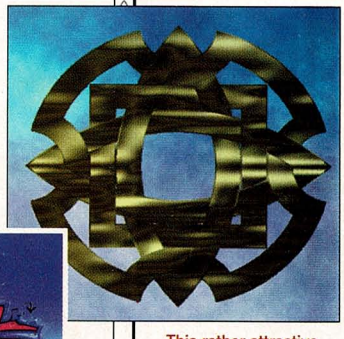
Requires: see individual Read Me files

Another month, another collection of great readers' contributions, including a particularly strong Art Gallery. There's some wonderful *Painter* creations from Joseph Pepper, some professional illustrations from James Lland and some rather well rendered images by Alan Wild. All the images in the Art Gallery can be opened using most graphics programs including *GraphicConverter,* which we feature regularly on the CD.

In the Readers' Contributions folder you'll find an entire icon collection from Alban-Jérôme Calcagno and Martin Pickering, and some Desktop textures from Fergus Corbett and Zack Morgan. This month's *HyperCard* stacks include a hangman game from Tim Geoghegan and an educational stack from Leantros Kyriakoullis.

On the gaming side there are some *Wolfenstein* levels from Michael McGregor and a complete game called *Zap'T'Balls* which takes you on a trip around the world.

If you'd like to contribute your own software and art, simply send them on disk or 44Mb SyQuest to Disk Editor, MACFORMAT, 30 Monmouth Street, Bath, Avon BA1 2BW.



This rather attractive Celtic style symbol was created by Alan Smith from Norwich. Alan has entitled his artwork 'Curves'.

Plug-ins galore

Turn to page 70 for our mammoth 7-page plug-ins feature!

We have hundreds of plug-ins on the CD for many major programs, including *Photoshop* and *QuarkXPress*. Some are shareware, some are demos, but all should provide plenty of fun. Here is a guide to some of the more entertaining *Photoshop* plug-ins. They also work with any compatible programs such as *ColorIt!* (demo on next month's MACFORMAT CD) or *NIH Image* (a shareware program you will find on next month's MACFORMAT CD).

This is the original scan of a leaf taken from the *MDI Image Warehouse* CD, which will be reviewed next month. Meanwhile MDI can be contacted on 01252 737630 for more information.

Bump: add the third dimension to your pictures, but you'll need *Photoshop* to create a fourth channel to use this filter.

cMulti: create the effect of looking at an object through a multi-faceted piece of glass.

FotoMagic: play around with colours using a variety of powerful tools.

Drop Shadow: automatically create a good looking shadow effect. Ideal for *NIH Image*.

Erosion: play around with the colours by eroding them to produce startling effects.

Frosty: if the hot weather is getting to you, add a bit of frost to your pictures to cool them down.

Watercolour: you don't need an easel, canvas and garret to produce watercolours any more.

Plaid: nature is a bit conservative with its colours. If I were God, this is how I would have painted leaves.

Plastic Wrap: my personal favourite – wrap things up in cling film and give them a plastic shiny look.

Sucking Fish: well this collection certainly wins my award for silliest name, but it can create inventive effects.

Texturizer: give your picture a textured look. In this instance it's like an oil painting on rough canvas.

Foul Play

Mystery at Awkward Manor

Something Terrible has happened at Awkward Manor !

A Photo-Realistic Game for the Whole Family
1-6 Players Ages 7+

AN ARMCHAIR TRAVEL PRESENTATION

PRODUCER WILLIAM BECKETT DIRECTOR WILLIAM DONELSON

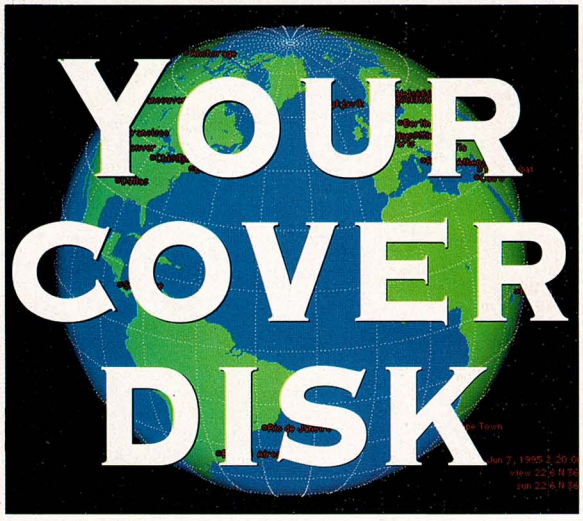
©1995 HASBRO, Inc.

THE ARMCHAIR TRAVEL Co.

Dealers & Distributor enquiries:
0800-908-909

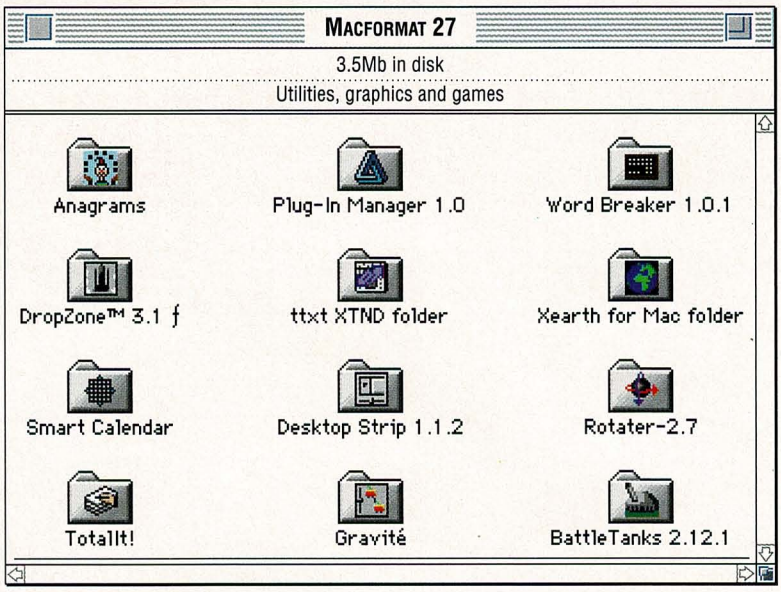
Level Ten Prize Drawing

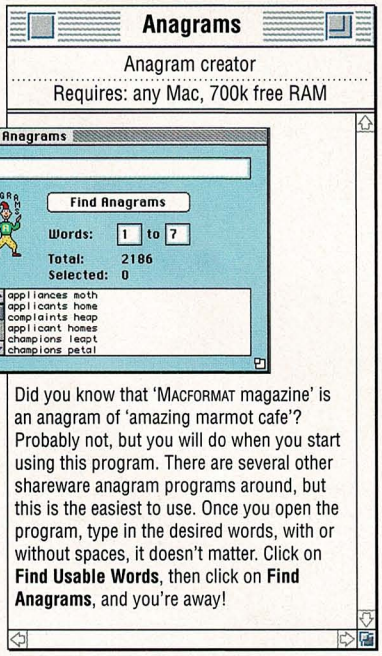
WHEN YOU SOLVE A LEVEL TEN GAME, SEND IN THE ENCLOSED CARD TO ENTER A QUARTERLY PRIZE DRAWING FOR A CHANCE TO WIN A FABULOUS MULTIMEDIA COMPUTER SYSTEM!
(Drawings held in Jan, Apr, July, and Oct each year. Final drawing in Jan 1997)



No matter what Mac you have, there's something for you on this month's jam-packed floppy disk, as Derek Smith reveals.

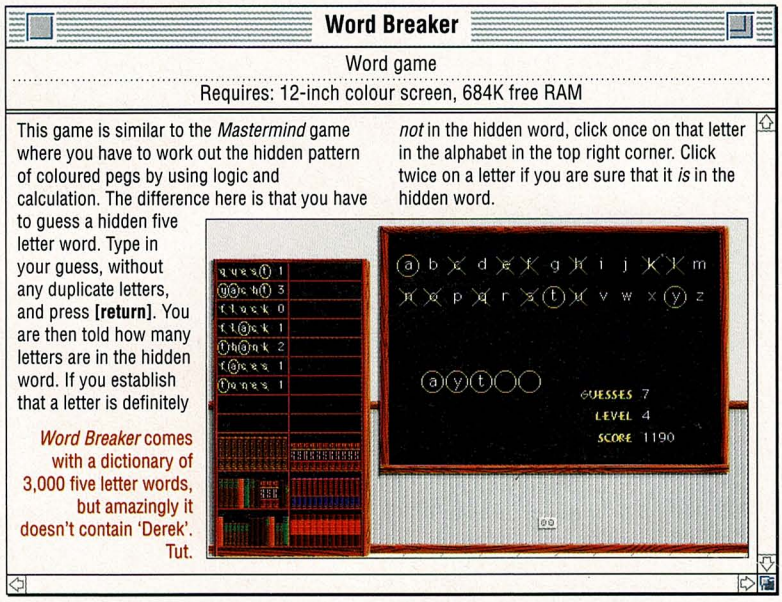
Thanks to the wonders of data compression, we bring you 3.5Mb of great software on this month's floppy disk, including some indispensable utilities that have impressed the MACFORMAT team. But it's not all work, there's also a couple of wonderful games to keep you at your Mac all month.





It's amazingly addictive finding anagrams from the names of family and friends, even pets. My dog's anagram is Rev or.

Did you know that 'MACFORMAT magazine' is an anagram of 'amazing marmot cafe'? Probably not, but you will do when you start using this program. There are several other shareware anagram programs around, but this is the easiest to use. Once you open the program, type in the desired words, with or without spaces, it doesn't matter. Click on **Find Usable Words**, then click on **Find Anagrams**, and you're away!



This game is similar to the *Mastermind* game where you have to work out the hidden pattern of coloured pegs by using logic and calculation. The difference here is that you have to guess a hidden five letter word. Type in your guess, without any duplicate letters, and press **[return]**. You are then told how many letters are in the hidden word. If you establish that a letter is definitely *not* in the hidden word, click once on that letter in the alphabet in the top right corner. Click twice on a letter if you are sure that it *is* in the hidden word.

Word Breaker comes with a dictionary of 3,000 five letter words, but amazingly it doesn't contain 'Derek'. Tut.

START HERE

ANAGRAMS

To see some anagrams produced with *Anagrams*, on the floppy disk this month, turn to the shareware reviews starting on page 117.

High density floppy disks normally contain a up to 1.4Mb of software, but to bring you as much as possible, we use a compression program to fit more on. So you need to decompress the software before using it – you'll need 3.5Mb of hard disk space. We also recommend that you make a backup of the MACFORMAT cover disk, just in case anything goes wrong. Here's what to do...

1 Ensure the original cover disk is write-protected (move the tab so that you can see through the hole).
2 Insert the MACFORMAT disk.
3 Drag the disk's icon over your hard disk's icon.
4 The contents are copied onto your hard disk, but are still compressed and cannot be used yet.
5 Drag the cover disk icon to the Wastebasket to eject the disk.
6 Insert a blank high density disk.
7 Drag the MACFORMAT 27 folder from your hard disk onto the blank disk's icon to make your backup.

To decompress the cover disk, open the MACFORMAT 27 folder on your hard disk.

1 Double-click on the MACFORMAT 27 icon.
2 Click **Continue**.
3 A box then asks you where you want to save the software. Choose the place on your hard disk where you want everything stored and click **Save**.

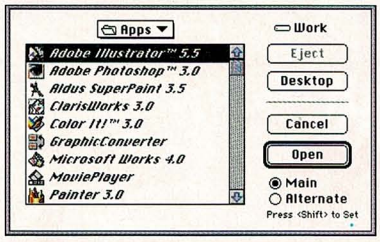
Before installing the cover disk, we always recommend that you back up any important work on your hard disk. This precaution will avoid problems should any of the software not be compatible with your setup. We make every effort to check our disks for compatibility and viruses, but the information here is intended as a guide only, and MACFORMAT cannot be held responsible for any damage to data, any inability to use this software or any resulting losses. So please, take the precaution of backing up first.

DropZone 3.1

Utility

Requires: any Mac, System 7

With System 7, you can drag a file onto an application to make that particular program launch it. This is fine, but of course you need to be able to see the icon of the application you want to drop it on. This leads to Desktops like mine with dozens of aliases cluttering it up. With *DropZone*, you drag a file onto its icon, and you then get a dialogue box offering you all your applications, so that you can select the desired one to open the file. You can create specific sets of programs to appear, and even set it up automatically for certain types of file to always be opened by a specific program.



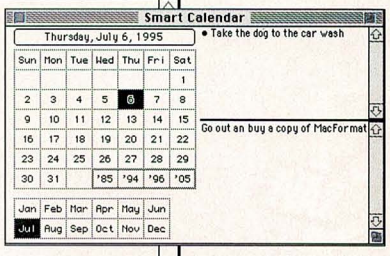
With *DropZone* you now only have to drag a file onto a single icon to launch it with any program.

Smart Calendar

Appointment keeper

Requires: any Mac

Smart Calendar is more than just a screen calendar, it also serves as a basic diary to keep all your appointments. Simply click on a date and write the details in the box to the right. By selecting **Repeating Events** from the **File** menu, you can detail things that happen on a regular basis, like birthdays or full moons.


Smart Calendar
Thursday, July 6, 1995
Take the dog to the car wash
Go out an buy a copy of MacFormat
Sun Mon Tue Wed Thu Fri Sat
Jan Feb Mar Apr May Jun
Jul Aug Sep Oct Nov Dec

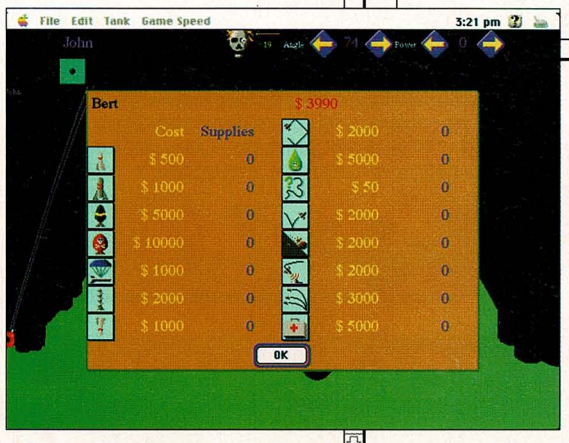
It's small, it's got little memory, it's very simple and it reminds you of appointments. Oh dear, looks like the wife's redundant.

Battle Tanks

Multi-player game

Requires: colour Mac

There have been many versions of this classic game, but none as good as this. The idea is that each player has a cannon placed on a hilly landscape. You have to shoot the cannon of your opponent by firing a projectile that is affected by wind and gravity. To be accurate, you'll need to adjust the angle of trajectory and the speed of projectile. You keep taking it in turn until one player kills the other. Up to ten people can play against each other, although this causes havoc on a small screen! Once the round is over and only one person is left standing, you can buy bigger and better weapons for the next round.



After you've blown your opponent into little squidgy bits, select more weapons for the next round.

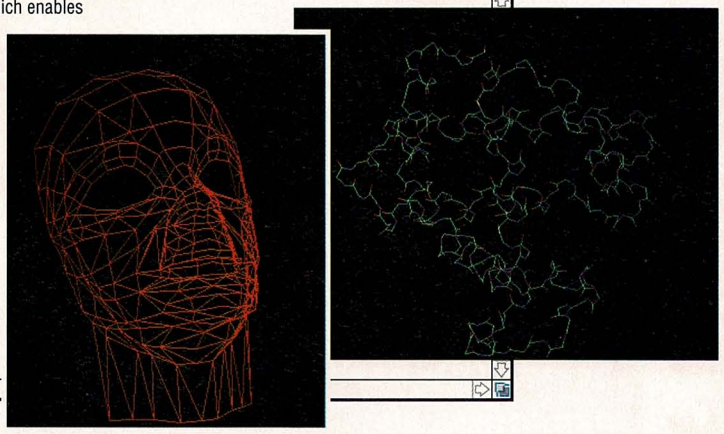
Rotator 2.7

Graphics utility

Requires: LCIII, 256 colour monitor, System 7

This is a fun graphics program which enables you to create a three dimensional shape by defining the x, y, and z points. The shape can then be rotated in real time using the mouse, and even spun on an axis. The are many basic shapes included on the floppy, and some extra ones on the CD.

Rotater is a simple but fun 3D program which enables you to view your creation from any angle.

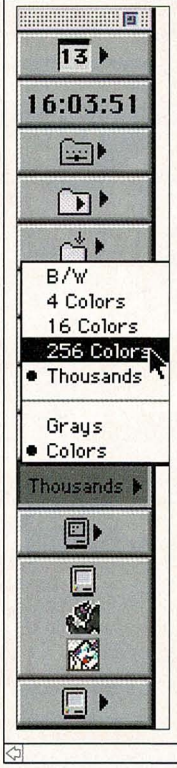


There are lots of shareware modules around that you can add to *Desktop Strip*.

Desktop Strip

Utility

Requires: colour Mac



Desktop Strip gives you the functionality of the Control Strip Control Panel which can usually only be found on PowerBooks (although any Desktop Mac can use this facility). It also provides several improvements. To install *Desktop Strip*, drag both the Control Panel and the Desktop Strip Modules folder onto your System Folder (they will automatically be installed in the correct places) and then restart. There are further modules in the Shareware Modules folder for you to take a look at. They all provide you with control over many important parts of the Mac, from a palette that floats permanently on your monitor's screen.

ART RULES!

Derek couldn't think of anything to put here, and neither could anyone else. But the art team said there had to be a margin note here for the general aesthetic appeal of this page. So if you've got any ideas for scintillating margin notes for our next issue, please send them to us at the address on page 6, because we'd hate to make you look at an empty white space.

GOT A PROBLEM?

If the cover-mounted high density disk or CD-ROM you have is defective, return it to us and we will replace it. Please make sure you have followed the installation procedures described in these pages correctly, to ensure that there is a physical problem with the disk itself. Otherwise, the replacement will be just the same!

Return HD disks to:
Discopy Labs
PO Box 21
Daventry
NN11 5BU

Return CD-ROMs to:
MACFORMAT CD returns
Future Publishing
FREEPOST (BS4900)
Somerton
Somerset
TA11 6BR

Enclose a self-addressed padded envelope (but we'll pay return postage) with the disk or CD, and a description of the fault. Please do not return disks or CDs to the editorial office; we don't hold any stocks of them and can only refer you to the addresses above.

Authorised Reseller

This is... computer warehouse

"To find out how no-one else offers more - visit a CW superstore!"

"I love the prices and service too and I'll bet it'll be a thrill for you!"

ALL OFFERS STRICTLY LIMITED AND SUBJECT TO AVAILABILITY

VISIT THE COMPUTER WAREHOUSE TODAY

475 PRICE SMASH!

SAVE

PROBABLY THE BEST VALUE MACINTOSH EVER!

The Macintosh 475 computer is one of the most popular Macs EVER! And it's not hard for CW to see why. This superb computer offers Quadra matching speed, and upgrade path to PowerPC, built-in monitor support to drive monitors up to 21" in size and expandable RAM memory to 36 megabytes.

The speedy Motorola 25Mhz 68LC040 processor gives if bags of power for word processing, basic dtp, games, etc. and makes it ideal for Education, general office and entertainment tasks - and with the addition of a CD-ROM you get access to the amazing world of multimedia!

Heralded as a minor miracle at its launch CW can now offer this superb performer for as little as £499!

Yes less than £500 for a Quadra speed Macintosh!

- Motorola 68LC040 processor running at a CW speedy 25Mhz
- 4Mb RAM fitted - expandable to 36Mb
- Choice of hard drives from 80Mb to 250Mb
- Easy to add Ethernet
- Colour support up to 21" monitors
- LC expansion slot - for PowerPC Upgrade!
- SCSI interface for adding external CD-ROM drives, Scanners, Optical Drives etc etc.
- Desktop mouse included
- System software included

Hurry - Extremely Limited Stocks at this amazing CW bargain price!!

Pictured with optional 14" RGB monitor & keyboard

EX WAREHOUSE MAC 475'S LIMITED STOCKS FROM £349 CALL NOW!!

THE CW SPEC CHECK

- 25Mhz 68LC040 Motorola processor
- Color support for monitors up to 21"
- SCSI Expansion port
- Accelerator slot for adding PowerPC upgrade or Ethernet

READILY UPGRADABLE TO PowerPC

BUY YOUR MACS IN-STORE!

Visit CW 1 or 2 for the unique face to face CW experience!

- 708a Tudor Est. Abbey Rd NW10
- 9 Hatton Street. NW8
- Massive stocks - crazy prices!

PERFORMA 475 4Mb RAM 250Mb DRIVE

WITH FREE CLARIS WORKS

£499

EX VAT £586 INC VAT KEYBOARD AND MONITOR EXTRA

THE CW 475 SUPER BUNDLE!!

PERFORMA 475 4MB RAM 250MB HARD DRIVE
14" PERFORMA PLUS DISPLAY, KEYBOARD
FREE NOW UTILITIES, DATEBOOK & TOUCHBASE PRO

£689

EX VAT £809 INC VAT

CW SIZZLING MACINTOSH 630 WOW!

Pictured with optional monitor

SAVE

QUADRA 800 MATCHING SPEED!!

Mega fast processing, loads of expansion, built-in CD-ROM drive plus the amazing option of TV viewing, makes this the multimedia computer of choice! And at what a great CW price. Where else could you get Quadra 800 matching performance and this amount of multimedia flexibility and options for less than £700!?!

- 66/33Mhz 68LC040 processor - the clock speed of a Macintosh Quadra 800!
- 4Mb RAM (Exp to 36Mb)
- Internal 350Mb IDE Hard Drive
- Built-in double speed CD-ROM drive (PhotoCD multi-session compatible)
- 3 internal expansion slots
- Optional TV Tuner (Allows TV in window operation)
- Support for 1,000s of colors (16-bit) on 14"
- Video support for 15" monitors (Check out the 15" multiscan with stereo speakers!)
- Dual Hard Drive I/O (Internal IDE, external SCSI)
- **MASSIVE SAVINGS - VERY LIMITED STOCKS!!**

THE CW SPEC CHECK

- 66/33Mhz 68040 Motorola processor
- Optional TV / Video In board for TV view & QuickTime capture
- Accelerator slot for adding PowerPC upgrade or Ethernet

READILY UPGRADABLE TO PowerPC

EX WAREHOUSE MAC 630'S LIMITED STOCKS FROM £499

PERFORMA 630 4/350 CD

VERY LIMITED STOCKS ONLY

£699

EX VAT £821 INC VAT KEYBOARD AND MONITOR EXTRA

THE CW 630 SUPER BUNDLE!!

PERFORMA 630 8MB RAM 350MB HARD DRIVE, CD
14" PERFORMA PLUS DISPLAY, KEYBOARD
FREE AVID VIDEOSHOP & CLARIS WORKS

FREE AVID VIDEOSHOP! Superb QuickTime movie making package FREE!!

£1199

EX VAT £1409 INC VAT

EDUCATION AND CORPORATE DISCOUNTS AVAILABLE - CALL 0171 724 4104

0171 724 4104 CW1
No 9 HATTON STREET. LONDON NW8 8PR FAX: 0171 724 3775

0181 838 5553 CW2
708A TUDOR ESTATE. ABBEY RD. LONDON NW10 FAX: 0181 963 0624

VISA SWITCH MasterCard AMEX

NEW!

6200/75
8/500 CD
14" PERF PLUS
£1199
INC KEYBOARD

This is... computer warehouse

Authorised Reseller

MULTIMEDIA POWER MAC

ULTRA POWERFUL & ULTRA FLEXIBLE

The Motorola 75Mhz Power PC 603 fitted to the CW recommended 6200 delivers CW 'knock-me-dead' speed and the level 2 cache (256k) means this Mac rips through multimedia, games and business applications with gusto. More flexible than the 5200 (you get to choose your monitor) this great new performer is set to become an office and home standard!
Just look at what you get for less than £1000!!

- Motorola Power PC 603 processor running at 75Mhz + 256k level 2 cache
- Built-in Quad Speed CD player
- Plays CD-ROMS or Audio CD's!
- 8Mb of on-board RAM expandable to 64Mb
- 500Mb internal IDE Hard Drive fitted
- SCSI interface for connecting scanners, hard drives, etc.
- Optional TV Tuner/Video in with remote
- **FREE Claris Works version 3**

Shown with optional 14" RGB monitor & keyboard

SAVE ££'S @ CW

GET THE GREAT CW UTILITY BUNDLE

FREE

NOW UTILITIES v5
Includes: WYSIWYG font menus, Auto Compression, Super Boomerang & more!

DATEBOOK PRO
Superb business planner

TOUCHBASE PRO
Contact manager

6200/75 8/500 CD + FREE SOFTWARE

FREE v3 CLARIS WORKS

£989

EX VAT £1162 INC VAT KEYBOARD. AND MONITOR EXTRA

SUMMER SALE

Hold on to your hats! It's bright, it's BIG, it's bold, it's THE CW SUMMER SUPER SALE! He's got a very Limited Stock of Ex-Warehouse Power Macs at sizzling summer prices.

6100/60
FROM ONLY
£749
LIMITED STOCKS
SAVE ££'S @ CW

7100/66
FROM ONLY
£999
LIMITED STOCKS
SAVE ££'S @ CW

8100/80
FROM ONLY
£1499
LIMITED STOCKS
SAVE ££'S @ CW

IMPORTANT INFORMATION

The above Power Mac's are Ex-Warehouse and may have damaged packaging.
All come with 1 year Apple On-Site Warranty.

APPLE ON-SITE 1 YEAR WARRANTY

ALL OFFERS STRICTLY LIMITED AND SUBJECT TO AVAILABILITY

AMAZING CW VALUE 5200

NEW!

FREE SOFTWARE

THE ALL-IN-ONE MACINTOSH SOLUTION IS HERE!!

Great for the office, ideal in the home, Apple have revolutionised personal computing again! Here is a CW fast Power Mac with a superb built-in 15" monitor, quad speed CD drive which plays CD-ROMs and audio CD's, stereo speakers and 3.5" HD floppy drive. Plus it can even have a built-in TV tuner!! It's no slouch either thanks to a 75Mhz 603 PowerPC processor and 256K level 2 cache. All this power means effective 7100/66 performance meaning it's ready to rip through multimedia and high-end business tasks with blinding speed.

- 75Mhz PPC 603 + 256k of level 2 cache
- 8Mb RAM exp to 72Mb
- 500Mb internal Drive
- Built-in 15" monitor with over 32,000 colours
- Built-in Quad Speed CD player
- Built-in stereo speakers & microphone
- SCSI interface
- Complete with keyboard & mouse
- Optional TV tuner + remote control

CW UTILITY BUNDLE

NOW UTILITIES v5
Includes: WYSIWYG font menus, Auto Compression, Super Boomerang & more!

DATEBOOK PRO
Superb business planner

TOUCHBASE PRO
Contact manager

FREE

5200/75 8/500CD + FREE NOW SOFTWARE

WITH FREE v3 CLARIS WORKS

£1229

EX VAT £1444 INC VAT

FREE V3

THE NATION'S FAVOURITE WAREHOUSE!

EDUCATION AND CORPORATE DISCOUNTS AVAILABLE - CALL 0171 724 4104

VISA MasterCard SWITCH AMEX

CW2 0181 838 5553
708A TUDOR ESTATE. ABBEY RD. LONDON NW10 FAX: 0181 963 0624

CW1 0171 724 4104
No 9 HATTON STREET. LONDON NW8 8PR FAX: 0171 724 3775

All products and offers subject to availability. **Prices exclude VAT** unless otherwise stated. E&OE. Computer Warehouse is a division of TSC Ltd. Apple, Quadra, Power Macintosh, Centris of Apple Computer. All other trademarks respected.

This is... computer warehouse

"I'm off to visit Hatton Street, these great new monitors are hard to beat!"

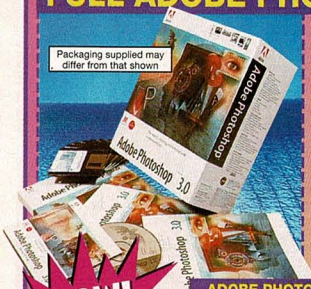
"The friendly shopping experience"

Authorised Reseller

VISIT THE COMPUTER WAREHOUSE TODAY

SOFTWARE SELECTION

FULL ADOBE PHOTOSHOP V3



With this super-deal from CW you get a full Adobe Photoshop V3 package AND your choice of a CD. Version 3 supports multiple layers so you have the freedom to experiment with ease.

- New lighting effects
- Color range masking
- Dust & scratch removal

YOUR CHOICE OF CD With this superb graphic software CW is giving a choice of CD-ROMS - you choose your title. -Call for details!

WOW!

ADOBE PHOTOSHOP V3 + FREE CD-ROM
LIMITED SUPER SAVER £299 EX VAT £351 inc VAT

MICROSOFT OFFICE 4.2

UPGRADE

If you have any previous version of a Microsoft Business application on your hard drive you can buy this amazing package that includes FULL VERSIONS of Excel! Word! PowerPoint! & Mail! for just £199! ATTENTION EDUCATION USERS You can purchase 4.2 for just £195! - And that's for the full version (you do **not** need a Microsoft business application already) - not the upgrade!

ONLY £195 EDUCATION SPECIAL PRICE FULL VERSION (NOT UPGRADE)

MICROSOFT OFFICE 4.2 UPGRADE PRICE
MICROSOFT OFFICE 4.2 £199 EX VAT £234 inc VAT

GAMES, GAMES, GAMES

SAVE £££'s

HARPOON II
Military strategy

FLIGHT COMMANDER 2

FIRST ENCOUNTER

FLASHBACK
Movie adventure

FIRESTONE LINKS COURSE

A-Classics Manage your own railroads	£19
Another World A real brain teaser	£25
Aqua Blooper A basement full of water	£27
Battle of Britain Re-enact history	£34
Bomber Experience the thrill of a Bomber	£34
Chessmaster 3000 Great chess game	£34
Chuck Yeager's Air Combat	£34
Civilization Create your own world	£34
Command HQ Clash of the super powers	£29
Crystal Crazy Even more crystals to get	£29
Crystal Quest 2 The best in the country	£22
Deliverance Fight the devilish dragon	£29
Dragon's Lair III Save Daphne!	£29
Fast Break Basketball fun and frolics	£22
Heart of China Go on a rescue mission	£25
Hellcats Mission Disk Another 8 missions	£25
Hellcats Over the Pacific Pilot an F16	£39
Lemmings Build, Bash, Climb & Mine	£28
MYST The superb action game	£34
Microsoft Flight Simulator Realistic	£35
Marathon Walk & Annihilate	£39
Oh No More Lemmings The new batch	£22
PGA Golf Extra Courses Play on	£12
PGA Tour Golf Three lifelike courses	£25
PGA Tour Golf 2	£29
Populous Game	£34
Prince of Persia Help the Princess to safety	£25
Scenery Disks 4 great scenes to try. Each	£22
Star Trek 25th Anniversary adaptation	£29
Stellar 7 Space Wards arcade action	£25
Wolfenstein 3D Kill those Nazis	£29
ZOA Zone of Avoidance. Alone in space	£29

VISIT THE SOFTWARE MOUNTAIN!!
COME ALONG TO CW AND EXPERIENCE THE CW SELECTION OF MAC BUSINESS, GAMES & EDUCATION SOFTWARE. NOT TO BE MISSED!!

NEWTON + MODEM FOR £99!!

EX WAREHOUSE COMMUNICATION SYSTEMS

Ideal for anyone who needs to gather, organise and communicate information. And at LESS THAN £100! With Newton you can organise your life, take notes, turn doodles into drawings, format and print letters, - even send faxes, hook up to on-line services and transfer data via the telephone lines.

- Note Pad
- To-do List
- Names & Phonebook File
- PCMCIA slot
- Includes full function **Fax Modem!**

PLUS when you buy this super CW Limited Offer you can add 4 pieces of great Newton software and a superb leather Comms carry case all for just £19.95!!

SAVE ££££'S

IMPORTANT INFORMATION
Items quality checked by Apple
Items are ex-warehouse & may have damaged packaging
All come with 90 day limited warranty

NEWTON COMMS SYSTEMS
LIMITED OFFER SUPER SAVER £99 £117 inc VAT
EX WAREHOUSE PACKAGING MAY DIFFER FROM CONTENTS

When you buy a Newton COMMS system you can add these 4 great pieces of software + a leather case for £19.95!

ADD ALL THIS SOFTWARE & A LEATHER CASE FOR £19.95!

GSM LINKS NOW @ CW!

Newton 120 & PowerBook 500 series FAX comms via the GSM network.
Packages include software & PCMCIA cards and Nokia 2110 phone.

CONNECTION FOR 120 + NOKIA PHONE
HURRY! CALL NOW £799 EX VAT £939 inc VAT

CONNECTION FOR P/BOOK + PHONE
HURRY! CALL NOW £999 EX VAT £1174 inc VAT

NEW AT CW

MESSAGE PAD 120

- Fast RISC processing
- 2Mb RAM
- 4MB ROM
- LocalTalk™ compatible

PLUS 4 FREE GREAT SOFTWARE TITLES!!

- Money Magazine Business Forms
- Dells Crossword Puzzles
- Fortune 500
- Fodors 94

FREE FAX/MODEM + SOFTWARE!!

MESSAGE PAD 120 + FREE MODEM
HURRY! CALL NOW £419 EX VAT £492 inc VAT

SAVE WITH CW

H. DRIVES, CD RECORDERS, OPTICALS

RECORDABLE CD!!

The Pinnacle RDC-1000 is virtually 3 drives in 1 making it the CW ultimate storage device under £1200!

RECORDABLE CD SYSTEM

- CD Maker
- Double speed recorder

X2 SPEED CD-ROM PLAYER

- Double speed player

PINNACLE RCD-1000 RECORDABLE CD SYSTEM
MAKE YOUR OWN CDS!! £1199 EX VAT £1409 inc VAT

SCOOP PURCHASE

500Mb H. DRIVE INTERNAL - QUANTUM MECHANISM AT CW ONLY £159! WOW!

2 GIG H. DRIVE INTERNAL - QUANTUM MECHANISM AT CW ONLY £625!

500Mb H. DRIVE EXTERNAL - QUALITY FORMAC BRAND AT CW ONLY £209! WOW!

1.3 GIG OPTICAL QUALITY PINNACLE BRAND ONLY £1499!

VISIT COMPUTER WAREHOUSE!

OPENING HOURS
9-6pm Monday thru Friday
10-5pm Saturday

EDUCATION AND CORPORATE DISCOUNTS AVAILABLE - CALL 0171 724 4104

0171 724 4104 CW1
No 9 HATTON STREET. LONDON NW8 8PR FAX: 0171 724 3775

0181 838 5553 CW2
708A TUDOR ESTATE. ABBEY RD. LONDON NW10 FAX: 0181 963 0624

VISA MasterCard SWITCH AMEX

"How to get great scans"

Resolution and color/greyscale scanning.
1. Determine the size the image will be printed and the line screen to be used (lines per inch)
2. Scan your image with a dpi (dots per inch) of roughly double the line screen value. (eg if the image is to be used same size and printed in a magazine with an lpi of **150lpi**, scan at **300dpi**).

Scanned on the CW Scanner

This is... computer warehouse

SAVE ££££'S

Authorised Reseller

"You really can find a great bargain at CW!"

COLOR SCANNERS FROM ONLY £299!!

CW COLOR PRINTER

YOU CAN'T BUY BETTER!

CW BUMPER DEAL!

360DPI COLOR PRINTER!
CW's famous brand 360dpi Thermal transfer color printer prints in black/white & color to plain paper & transparencies.
- 360DPI Thermal Transfer
- 15 FREE TrueType fonts
- Prints to plain paper, transparencies etc

CW FAMOUS BRAND COLOR PRINTER
THAT'S RIGHT A GENUINE CW COLOR PRINTER FOR.. £99 EX VAT £117 inc VAT

STYLEWRITER 2200

PORTABLE COLOR
Ideal for PowerBook users, the new Color StyleWriter 2200 features 'fit-in-a-briefcase' ease of use with great print quality!
- 360dpi resolution color
- 720 x 360dpi mono gives superb 'laser-like' quality

NEW AT CW!!
APPLE STYLEWRITER 2200 - PORTABLE COLOR
CHECK IT OUT NOW @ CW £399 EX VAT £469 inc VAT

STYLEWRITER 2400

FREE

SUPERIOR QUALITY COLOR!
The ideal low-cost color printer and a CW 'Best Buy' for output quality.
- 360DPI ink-jet
- 64 FREE TrueType fonts
- Fast drying inks
- Prints to plain paper
- **FREE 25 Fun Fonts**

APPLE COLOR STYLEWRITER 2400
BUY NOW & SAVE £££'S £349 EX VAT £410 inc VAT

12/600 COLOR LASER

NEW

COLOR APPLE POSTSCRIPT LASER PRINTER
Near-photographic quality color laserprinting!!
- Genuine 600dpi printer
- PostScript Level 2
- Ethernet networking
- Fast printing
- **CHECK IT OUT TODAY!**

APPLE COLOR LASERWRITER 12/600PS
AT CW IN STOCK NOW!! £4795 EX VAT £5634 inc VAT

24BIT COLOR SCANNER

COLOR SCANNING FOR LESS THAN £300!!

This excellent quality color scanner captures glorious 24bit color images as well as greyscale and line art. That means it's ideal for scanning color photographs, black and white photographs, drawings, diagrams and OCR work. Image retouching is made easy as the CW package includes Adobe Photoshop LE.
- 24-bit color scanning (16.7million colors)
- 8-bit color scanning (256 greys)
- 300 x 600dpi optical resolution
- TWAIN compatible
- 1200dpi x 1200dpi interpolated
- Versatile lid operation
- Free Photoshop LE + easy to use full-function plug-in

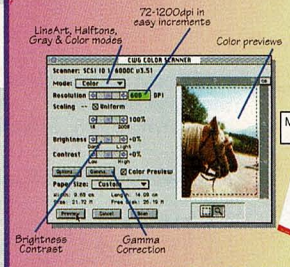
YOU CAN'T BUY BETTER!

WOW!

SCOOP PURCHASE!

VERSATILE PHOTOSHOP PLUG-IN

The versatile Photoshop plug-in bristles with features that help you get great scans everytime. Scans can be lightened, color corrected, cropped etc with ease. Create you're own gamma curves for enhancing a batch of images with the same fault - eg if they all have a green cast! Professional tools for a quality scanner!



24BIT COLOR SCANNER + PHOTOSHOP LE
Minimum packing supplied.
£299 EX VAT £351 inc VAT

STUDIOSCAN II

AGFA

YOU CAN'T BUY BETTER!

CW BUMPER DEAL!

Winner of the Mac User Best Buy low-end scanner this great CW value unit produces great, consistent scans
- 30bit quality scans (10bits each RGB)
- 400 x 800dpi optical re
- TWAIN compatible
- PhotoSnap easy to use software
- 2400dpi enhanced resolution
- **FREE** Phototune Lite

AGFA STUDIOSCAN II COLOR SCANNER + FREE LE
SAVE £££'S £699 EX VAT £821 inc VAT

SCANTOUCH

NIKON

SCOOP PURCHASE!

Without doubt one of the best quality flatbed color scanners around and here at an incredible CW price.
- 30bit quality scans (10bits each RGB)
- 565 x 1200 optical res.
- TWAIN compatible
- Optional transparency adaptor
- 2400dpi enhanced resolution
- Very fast: A4 col in less than 30secs

NIKON SCANTOUCH + FREE PHOTOSHOP LE + FREE LE
SAVE £££'S £899 EX VAT £1056 inc VAT

LASERWRITER 320

PERSONAL

300DPI APPLE POSTSCRIPT LASER
Superb quality Level 2 printer with 39 scalable fonts FREE!

APPLE PERSONAL LASERWRITER 320
SAVE £££'S LIMITED SUPER SAVER £599 EX VAT £704 inc VAT

HP DESKWRITER 520

300x600DPI INK-JET PRINTER
LocalTalk, superb quality print and the HP name make this a CW Top Buy!

HEWLETT PACKARD HP DESKWRITER 520
SAVE £££'S LIMITED SUPER SAVER £225 EX VAT £264 inc VAT

EPSON STYLUS COLOR

720dpi COLOR PRINTER
Incredible 720dpi output (with special paper) 360dpi plain paper!

EPSON STYLUS 720DPI COLOR PRINTER
NEW AT CW!! WITH CW SAVE £££'S £375 EX VAT £441 inc VAT

STYLEWRITER 1200

APPLE

NEW AT CW!!

NEW APPLE STYLEWRITER
With improved software this incredible printer will print 1200dpi!

APPLE STYLEWRITER 1200
PLUS FREE FUN FONTS £199 EX VAT £234 inc VAT

EDUCATION AND CORPORATE DISCOUNTS AVAILABLE - CALL 0171 724 4104

VISA SWITCH MasterCard AMEX

CW2 0181 838 5553
708A TUDOR ESTATE. ABBEY RD. LONDON NW10 FAX: 0181 963 0624

CW1 0171 724 4104
No 9 HATTON STREET. LONDON NW8 8PR FAX: 0171 724 3775

The World's Favourite Laser Printers from the HP Specialists

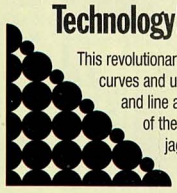
HP LaserJet 4MV

Full A3, 600dpi, Postscript Level 2 Desktop Printer

The new 16ppm HP LaserJet 4MV sets a new standard for workgroup printing, offering A4/A3 paper size printing and the most advanced printer management capabilities. With true 600dpi resolution, HP's Resolution Enhancement technology (see panel) and micro-fine toner, the HP LaserJet 4MV gives outstanding performance - even on scanned photos with 120 levels of grey at 106lpi from HP PCL5 Windows printing or 122 levels of grey at 106lpi in PostScript. The HP LaserJet 4MV is fast too! A 16ppm engine with a cached 33MHz RISC processor offers unmatched speed and versatility for a desktop printer. It can print on any size from postcards to A3 and two trays give a 350-sheet input capacity (an optional 500-sheet lower tray increases the capacity to 850 sheets.) You can "plug and play" to more than 12 networks in PC/ Mac/ UNIX environments and with HP's new printer management utilities JetAdmin / JetPrint a new level of print status readback and job tracking information is at your fingertips.

HP LaserJet 4MV £2099

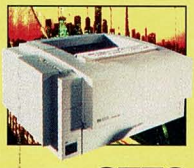
HP's Revolutionary Resolution Enhancement Technology!



This revolutionary technology smooths curves and uneven edges in text and line art by varying the size of the printed dot and filling jagged steps between dots *(see left).*

HP LaserJet 5MP

- Fast printing, 12ppm engine
- True 600dpi (at 6ppm) with micro-fine toner
- Full High Res. enhancement
- Auto switching ports
- Bitronics/RS232 ports
- 45 built-in fonts
- Power-save mode
- 1-year warranty
- Upgradeable to 66Mb RAM



HP LaserJet 5MP.....£779

HP DeskWriter 660C

Enjoy superb high-resolution black print quality and add rich colour to your documents with no fuss. Sharp, 600 x 600dpi black printing with HP's Resolution Enhancement and the advanced ColorSmart technology gives you easy-to-use, clear, vivid colour output. The HP DW660C delivers fast output (4ppm mono, 1ppm colour), 2-cartridge paper handling, a wide variety of built-in scalable fonts for professional presentation, dramatic black and greyscale printing, standard AppleTalk and serial interfaces, and a 3-year warranty - the longest in the industry.

HP DeskWriter 660C.....£359

'WE KNOW PRINTERS' PRINTER CITY

Why Choose Printer City?

Whether you are looking for a specific printer, advice about networking printers or just the best price in the market - Printer City is for you. Our experienced sales and technical people and awesome buying power mean you get the service you want and the price you need. We're backed by one of the UK's largest Apple dealers, so you can buy in total confidence. Remember, we know printers!

HP DeskWriter 320

- Inkjet printing at up to 3 pages per minute
- 600x300dpi resolution
- Centronics interface

HP DeskWriter 320 .....£189

Full HP Support Pack Cover!

Available on all HP printers, the HP Support Pack offers you 3 years of on-site maintenance for your printer. Only **FROM £40**

HEWLETT PACKARD TAKE COVER Buy HP SupportPack

HP LaserJet 4M Plus

- LaserJet printing at 12 pages per minute
- 600dpi resolution with Resolution Enhancement
- Bitronics, RS232 Serial, MIO slot, and Ethernet JetDirect interface
- 6MB in-built memory, upgradeable to 56MB

HP LaserJet 4M Plus....£1329

HP DeskWriter 540

Choice of colour or extra high quality 600dpi black output from this robust, economical Mac printer with 14 built-in fonts, AppleTalk and Centronics ports and a 1000 pages per month duty cycle.

HP DeskWriter 540.....£239

HP Color LaserJet

A3, 300dpi, 16.7m colours

Prints 16.7m colours!

The HP Colour Laserjet gives you high performance A3 mono and colour output. Meeting the demands of shared office environments with superb paper handling flexibility and connectivity options for network use, it features excellent print quality with true 300dpi and HP's Resolution Enhancement for mono printing, plus single pass colour printing for crisper, cleaner, sharper images. HP's ColorSmart technology optimises output vibrancy and clarity. The HP Colour LaserJet also offers automatic protocol switching.

HP Color LaserJet £4650

HP LaserJet 4SI/MX

- LaserJet printing at 10 pages per minute
- 60dpi resolution with Resolution Enhancement
- Bitronics, 2 MIO slots and Ethernet JetDirect interface
- 10MB in-built memory, upgradeable to 56MB

HP LaserJet 4SI/MX.....£3199

HP DeskJet 850C

- Colour InkJet printing at up to 6 pages per minute
- 600x600dpi resolution (mono), 300x300dpi (colour) plus Resolution Enhancement
- Centronics ands LocalTalk RS422 interfaces
- 1MB in-built memory

HP DeskJet 850C.....£429

HP PRINTER COMPARISON CHART

		HP DESK-WRITER 540	HP DESK-WRITER 660C	HP LASERJET 4MPLUS	HP LASERJET 4SI/MX	HP COLOR LASERJET	HP LASERJET 5MP	HP LASERJET 4MV
Technology		Inkjet	Col. Inkjet	Laser	Laser	Colour Laser	Inkjet	Laser
Speed:	Mono	3ppm	4ppm	12ppm	10ppm	10ppm	6ppm	10ppm
	Colour	1.5ppm	1ppm			2ppm		12ppm
Resolution:	Mono (dpi)	600x300	600x600	600dpi +REt	60+REt	600+REt	600+REt	
	Colour (dpi)	300x300	600x300			300		
Memory:	Standard	512KB	512KB	6MB+MEt	10MB	6MB+MEt	6MB+MEt	6MB+MEt
	Upgradeable			56MB+MEt		72MB+MEt	66MB+MEt	66MB+MEt
Interfaces		Centronics	Centronics	Bitronics RS232 Serial, MIO E'net JetDirect	Bi-tronics 2xMIO Slots E'net JetDirect	Bi-tronics MIO Slot E'net JetDirect	Bi-tronics Small Para. L/Talk RS422 & InfaRed	Bi-tronics MIO Slot E'net JetDirect
Typefaces:	bitmapped	4 (port+land)	4 (port+land)	1	1	1	1, 45 Intellifont/TT	1
	scaleable	14 Windows	14 Windows	45 Intellifont/TT 35 Adobe Type 1	45 Intellifont/TT 35 Adobe Type 1	45 Intellifont/TT 35 Adobe Type 1	77 TT on disk 35 Adobe Type 1	45 Intellifont/TT 35 Adobe Type 1
Warranty		3 Years	3 Years	1 Year	1 Year	1 Year On-Site	1 Year	1 Year
Support Pack		Yes	Yes	Yes	Yes	Yes	Yes	Yes
		£239	£359	£1329	£3199	£4650	£779	£2099

Call 0171 775 4200

Or Fax 0171 410 9193

Printer City, 74 Rivington Street, London EC2A 3AY

HEWLETT PACKARD Authorised Reseller Personal Computer Products

SWITCH VISA Access AMERICAN EXPRESS

PRINTER CITY 'WE KNOW PRINTERS'

Printer City is a trading division of Callhaven plc. Our standard terms and conditions apply to all orders, a copy of which is available upon request. All prices excluding VAT and delivery. E&OE.

MACFORMAT NEWS

New card standard for cheaper add-ons ■ Apple announce more price cuts, new colour printers. Richard Hill reports.

New card slot for more choice, better prices

The first of a new breed of PowerMacs has been launched, incorporating a new type of card slot that is already an industry standard and will become the standard for Macs. This means that Macs will be able to accept a vastly increased range of plug-in expansion cards – adding enhanced graphics or networking capabilities, for example – at much keener prices.

PCI (Peripheral Component Interconnect) is already fast becoming the standard in the Windows PC market. Manufacturers will be able to make one card that will fit in both Macs and PCs – the only difference is in the software the computers will need to recognise the presence of the cards. So firms will have a much wider market for their cards, meaning they will be able to sell them for less – and meaning a better choice for you.

The first PCI Mac is the Power Macintosh 9500, a top-of-the-range monster costing over £4,500, but cheaper machines – the 7500 and the 8500 – will follow shortly. Ultimately, the entire Mac range should have PCI slots.

PCI slots will also form a crucial part of the set-up for new Mac-compatible machines from companies like Power Computing. The standard replaces NuBus, previously the most popular card slot for the Mac – but PCI cards will be far cheaper and faster. In the near future, it's expected that some companies will be making PCI interfaces into which you can slot your existing NuBus card, so you can use any expansion cards you already own with the new Macs, until you're ready to completely make the switch to PCI.

Apple's contribution to your choice of PCI cards will be limited to a set of network cards for the time being, while they focus on making the Macs that can use the cards.

By far the most powerful Mac ever, the 9500 is the first of a range of machines that offer cheaper support cards.

The Power Macintosh 9500 is targeted at graphics and multimedia professionals – it's twice as fast as the previous top-of-the-range 8100/110. There are two models available, with different chip clock speeds – both have 16Mb of RAM, a quad-speed CD-ROM drive and a specialised graphics accelerator card from the ATI firm. There are six PCI slots in each model.

The 9500/120 costs £4,695 and also includes a 1Gb (1,000Mb) hard disk. The 9500/132, which has a 2Gb drive, costs £5,816 – although there's also a £5,552 model without the video card, so you can get the card of your choice.

Apple say that they see PCI as one of the three linchpins of the Mac range for the next several years, along with the PowerPC chip and OpenDoc, the new system which means huge, complex applications will be replaced by smaller, specialised components that you can mix and match as needed (for details, see MACFORMAT 26).

For more details on the new generation of PowerMacs, contact Apple on 0800 127753. For details on the graphics cards from Radius, call them on 01483 772773.

PCI CARD MAKERS

Radius, one of the biggest manufacturers of Mac expansion cards, are supporting PCI with an entire range of graphics cards, which offer the dual benefits of increased screen resolution of up to 1,600 by 1,200 pixels and faster graphics drawing. There are three ranges – ThunderColor, Thunder and PrecisionColor. You can also get a closer match between on-screen documents and the way they print out. Some of the new cards cost as little as half as much as their NuBus equivalents, Radius say – and all are cheaper to some degree. For example, the base PrecisionColor 8/1600 card costs a mere £704.

Radius are of course one of the companies that are making Mac-compatible computers (see News, MACFORMAT 22), and a combined bundle of a computer and graphics card is inevitable. The industry newspaper *MacWeek* reports that Radius have approached IBM to manufacture Mac-compatible computers to be sold under the Radius brand (yep, Mac clones made by IBM!), giving Radius the increased potential to break out beyond their graphics professional constituency.

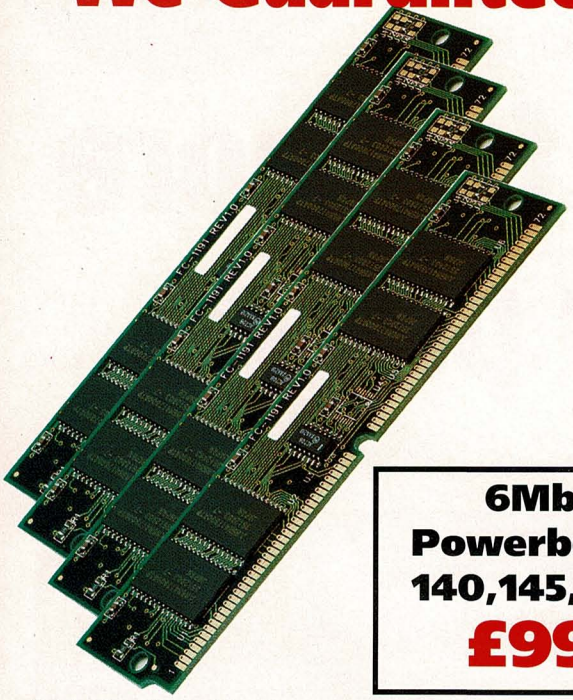
Other companies making PCI cards include Truevision (the new name for well-known video firm RasterOps), Avid Technology (of *VideoShop* fame), Neutral (with a range of network cards), ATI, Linotype-Hell, and Rockwell. And Matrox Graphics, one of the top card producers, are now supporting the Mac for the first time.

APPLE CD-ROM PRICE

The new quad-speed CD600e CD-ROM drive from Apple (see MACFORMAT 25) goes on sale in August for around £350. It's up to twice as fast as the CD300, meaning smoother playing multimedia. There's also an internal version – the CD600i – that you can swap with your current built-in drive. For more details contact Apple on 0800 127753.

Memory

We Guarantee You The Best Prices !



16Mb PowerMac Simms

Limited Stocks !

£299

6Mb Powerbook 140,145,170

£99

- Top quality memory from major manufacturers
- Lifetime instant replacement warranty
- FREE installation guides for most Macs
- All memory pre-tested for compatibility and reliability
- No risk 30 day money-back guarantee

Products sold may differ from photograph.

All our top quality memory features a lifetime replacement warranty. Major corporates, educational & government backed institutions are welcome to purchase with an official order.

We will match or beat any price.

Macintosh Memory

Desk top Macs		6Mb PB 140/170	£99
2Mb 30 Pin Simms	£59	6Mb PB 160/165/180	£129
4Mb 30 Pin Simms	£95	6Mb PB 165c/180c	£162
4Mb 72 Pin Simms	£99	8Mb PB 150	£249
8Mb 72 Pin Simms	£199	8Mb PB 160/165/180	£165
16Mb 30 Pin Simms	£385	8Mb PB 165c/180c	£222
16Mb 72 Pin Simms	£339	8Mb Duo	£239
16Mb PowerPC Simm	£299	8Mb PB 500 Series	£239
32Mb 72 Pin Simms	£635	10Mb PB 165c/180c	£229
Powerbook & Duo		12Mb Duo	£345
4Mb Power Book 140/145b/170	£77	16Mb PB 500 Series	£429
4Mb Power Book 150	£133	20Mb Duo	£585
4Mb Power book 160/165/180	£88	***Video Ram***	
4Mb PB 165c/180c	£112	256K Video RAM.	£14
4Mb PB 500 Series	£126	512K Video RAM. LC, LC475,8100	£28

PowerMac Upgrades

DVC PowerMac Accelerator

£75

Now available for 8100/100 !

Level 2 Cache Cards - up to 40% faster !

256k Cache Card	£99
512k Cache Card	£189
1Mb Cache Card	£379

"Every PowerMac 6100 & 7100/66 should have one"
- MacUser April '95

performance direct

Memory prices are currently very volatile and may change without notice. Please call for latest pricing.

All credit cards are checked for fraudulent use

30 Day Money Back Guarantee

Access VISA AMERICAN EXPRESS SWITCH

Tel: 01784 477 477

IN THE HARD DRIVE & MEMORY BUSINESS SINCE 1990 – OVER 15000 SATISFIED CUSTOMERS !
30 DAY MONEY BACK GUARANTEE – NEXT DAY DELIVERY – LONG WARRANTIES – FREE TECHNICAL SUPPORT

Performance Direct, Kingfisher House, High St, Egham, Surrey TW20 9HP. Fax: 01784 477 377.

Amex, Visa, Access & cleared cheques all accepted. E &OE. 30 day moneyback & all sales subject to Performance Direct's terms of sale. Offers available while stocks last. Prices exclude VAT & delivery.

Price cuts follow PCI launch

Apple are cutting the prices of much of their PowerMac, Performa and PowerBook ranges, with the Performa 630 now available for as little as £880. The previous price for the most basic 630 model was £999. The 630 with 8Mb of RAM and a CD-ROM drive stays at the same price, but its hard drive size has increased from 350Mb to 500Mb.

Now you can get the original PowerMac model – the 6100 – for less than £1,500. The popular 7100 should be available for under £2,000.

In the wake of the new PCI PowerMac (see lead story on page 19), the prices of many of the current PowerMacs are tumbling by as much as 16%. The hard disk size of the 6100/66 has also been increased from 350Mb to 500Mb.

It's now cheaper to take a Mac on the road as the prices of many PowerBooks fall by up to 8%.

As with all of Apple's prices, the figures in the table are estimates of what you'd pay – shopping around could save you money on these prices. Significantly, the 630 is the only Mac in the desktop range not to have a PowerPC chip in it. Could it be the last Mac as we knew them?

New Mac prices

PowerMacs

Model number/Chip clock speed, Memory/Hard disk/Features

6100/66 8/500	£1,381
6100/66 8/500/DOS	£1,872
7100/80 8/350	£2,074
7100/80 8/700/CD/AV	£2,409
8100/100 8/700	£3,261
8100/110 16/2Gb/CD	£4,295

A monitor and keyboard cost extra.

Performas

Model number, Memory/Hard disk/Features

630 4/250	£880
630 8/500/CD	£1,169

Monitor and keyboard are included.

PowerBooks

Model number, Memory/Hard disk/Features

Duo 280c 4/500	£2,620
Duo 280c 12/500/EM	£3,082
540c 12/500/EM	£3,945

The prices of other Mac models, including the new Performa 5200 and 6200 and the 630 DOS Compatible, are unchanged.

Prices include VAT. AV: Audio-visual capabilities inc built-in speakers. CD: internal double-speed CD-ROM drive. DOS: DOS Compatible card for running Windows and MS-DOS software. EM: Express Modem included.

Video phone

Apple and major telecommunications firm AT&T are to develop a networking system that will enable you to communicate with video, voice or data. For example, you'll be able to discuss a piece of video with someone in another country, and both be able to view the video as you talk.

Taligent scales down

Taligent are abandoning plans to create a new operating system for all major computer platforms, including the Mac (see issue 19). They'll focus instead on CommonPoint, a system that will enable programmers to get their work onto different platforms more easily than at present.

Live video over the Net

If you're using the *Netscape Navigator* browser program to move around the World Wide Web, you'll soon be able to watch video sequences live.

At the moment, you have to load the video files onto your hard drive and watch them later. People using the Web – already the richest part of the Internet for graphics – will be able to communicate in even more creative and flexible ways.

The development is because of a deal between Netscape and Macromedia to share Macromedia's software. You'll be able to place files made with *Macromedia Director*, a top program for creating multimedia, onto the Web so that anyone can watch them live with a new version of *Netscape* due later this year. It also enhances the position of the Mac as one of the top computers for creating multimedia – much of what you'll see on the Web will have been made with a Mac.

Netscape are busily trying to set new standards of what can be done on the Internet. There are already plans to use Adobe's PDF (Portable Document Format) system to make the Web look much more professional, with many more type styles available. And the integration of Java, a programming language developed by the Sun firm, means you'll even be able to use small programs like spreadsheets that are built into Web pages.

Watch multimedia live on the Internet! These examples were created by Bigtop, Canter, Mythos and Red Dot using *Director*.

Highlander astray

Apologies if you tried to use the Highlander bulletin board with our *TeleFinder* software last issue – the BBS phone number was missing from the Preferences file. The number you need is 0141 881 0418, and the free connection offer has been extended until Friday 1 September.

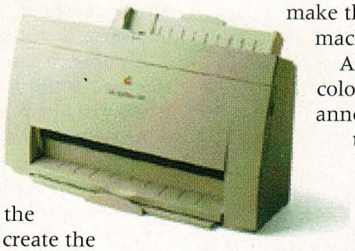
Printers add splash of colour

Apple are revamping their line of printers, with new or changed colour models at its core. A portable printer is now available for as little as £350, while there's a new laser printer to offer top-quality colour. All the printers include ColorSync software for getting the printed result as similar as possible to what you see on-screen.

Colour printers for all: the LaserWriter 12/600 (above), the StyleWriter 2200 (top) and the the StyleWriter 2400 (right).

At less than a foot long and only 2.2 inches high, the Colour StyleWriter 2200 is an inkjet printer you can easily carry around with you. It can print full colour images at 360 dots per inch (dpi) or in black-and-white at 720 by 360 dpi. A 30-sheet paper feeder and 64 TrueType fonts are included in the price of around £350.

Like the 2200 and the monochrome 1200 (see What's New in MACFORMAT 26), the Colour StyleWriter 2400 (£410) now comes with a range of printing utilities. You can print up to four pages at reduced size on an A4 page, so you see rough samples of your work-in-progress without wasting paper. You can also add a watermark (a faint image behind your type) to your documents and create a printer icon to place on your Desktop. If you drag a document file to the icon, the program you used to create the file loads up and presents the Print dialogue box, ready to print.



The £5,875 Colour LaserWriter 12/600 PS is a top-of-the-range printer for businesses, offering near photographic printing quality. Apple claim that new technology makes the LaserWriter as good as printers that cost far more – they've filed 42 patents just on ideas used in this one printer. Over time, many of the ideas used should make their way into cheaper machines.

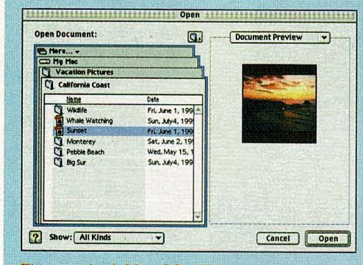
At the same time as the colour launches are announced to the world, the retail price of the Select 360 drops by 10% to around £1,174. It's a monochrome laser printer that can produce type and images at 600 dpi.

IBMs WILL USE MAC OS!

The first details of the computer that will replace the PowerMac have been released. CHRP (Common Hardware Reference Platform) is a joint project from Apple, IBM and Motorola, and all three companies will be making their own versions – but IBM now say that they intend to include the Mac Operating System with theirs!

CHRP (pronounced 'chirp') will be able to run the Mac OS and any of five other operating systems – Windows NT, OS/2, Solaris, Novell Netware and AIX – most of which are designed for specialist use.

On top of the announcement that IBM will be making Mac clones for Radius (see lead story, page 19), IBM's plans to include the Mac OS with their CHRP machines might seem to mean that the Mac is taking over the world. But IBM maintain that their own OS/2 will be ready to be supplied as well. Still, with the huge clout IBM have with business customers, their support should mean many more people using the Mac OS in future.



The new-look Mac OS will come with Apple's CHRP computers by the end of 1996 – and with IBM's too.

The first CHRP machines are expected to go on sale in late 1996. A brief proposed specification has been released to the rest of the industry to invite comments – a more precise and definite system spec will emerge later.

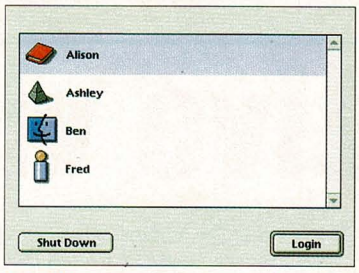
CHRP will be based on the PowerPC chips used in PowerMacs, with the 604 as the minimum level.

To use the Mac OS, you'll still need a customised chip, as the hardware and the operating system work so closely together. It's expected that a future version of the Mac OS will remove this need, but the first version to run on CHRP will be the System version code-named Copland.

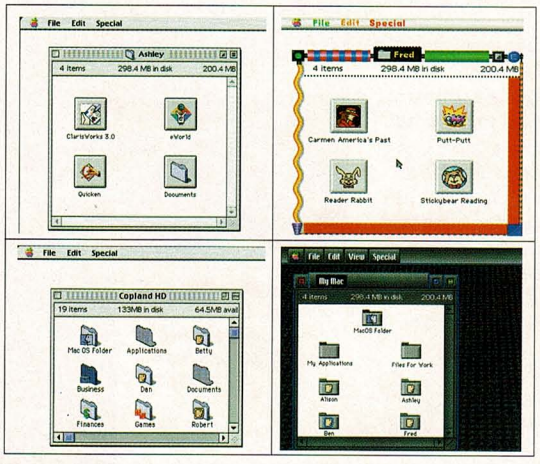
COPLAND: A FIRST LOOK

The Mac's operating system is headed for a radical overhaul, as we reported last issue. The new Mac OS, code-named Copland, is the most powerful yet – although trickery with virtual memory means it's expected to run comfortably on a PowerMac with 8Mb of RAM. The release date is set for mid-1996.

Among the many new features is a new look for the familiar Desktop. The pictures show how you'll be able to change Desktop styles between a number of options, according to how skilful you are at using the Mac or simply which look you prefer. Some designs will be supplied with the new version of the Mac OS, but you'll be able to buy others later – or you can even create your own. (The designs shown here are early examples – you won't necessarily get these with Copland.)

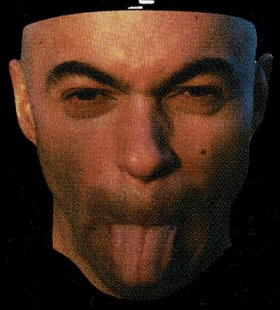


Using this start-up screen, you can choose the look that's best for you. Each person that uses your Mac can pick his own design.



Depending on your tastes, you can choose from (clockwise from top left): the beginner's Desktop with buttons you only click on once and few menu options; a fun Desktop for young children, again with single-click buttons; a high-tech look for posers – sorry, 'power users'; and the standard Desktop with redesigned icons and windows.

GET OUT OF YOUR HEAD



AND INTO OURS.

UnZip THE UK'S FIRST FULLY INTERACTIVE MAGAZINE ON CD-ROM FOR MACINTOSH AND WINDOWS

From the people who bring you VOX, NME and New Scientist plus ZONE (UK) the UK's leading multimedia specialists.

AVAILABLE AT SELECTED W H SMITH, JOHN MENZIES, HMV, VIRGIN AND TOWER RECORDS. CREDIT CARD HOTLINE 01933 414300

UnZip by phone: Credit Card Hotline 01933 414300 UnZip by FAX: to the Cash Sales Department of Reed book Services Ltd. FAX number 01933 414047
UnZip by post simply Send your completed form to: REED BOOK SERVICES, NORTHAMPTON ROAD, RUSHDEN, NORTHANTS. NN10 6YX.

Please send me UnZip CD-ROM ISSN 1359-1215
RRP £15.99 Postage and Packing: Free Qty ____ Total ____
Name (MR/MRS/MS) Initials _____
Surname _____
Address _____
_____
Postcode _____

I enclose a cheque for the total amount indicated made payable to:
REED BOOK SERVICES LTD.
or, please debit my Access/Visa/Amex/Diners (please delete)
to the sum of £ _____ Card Expiry date: Month _____ Year ____
Card Number: | | | | | | | | | | | | | | | | |
Signature _____ MFO0795

Orders are normally dispatched within 5 days. But please allow up to 29 days for delivery. Orders apply to UK only, subject to availability. Registered Office, Michelin House 81 Fulham Road, London SW3 6RB. Reg. in England No. 1974080

WHAT'S NEW

The most popular program on the Mac is revamped! Plus MACFORMAT brings you a new alternative to the floppy disk and the latest in affordable modems. Compiled by Richard Hill.

ClarisWorks 4.0

In September we'll see a brand-new version of the best-selling Mac program of all, *ClarisWorks*. The top integrated package – with word processor, database, spreadsheet, drawing and presentation modules – will gain over 100 new features. But don't worry, you'll still easily be able to use it on a 4Mb Mac.

The price of the latest version hasn't been decided, but you shouldn't expect it to cost more than the £120 you'd pay for the current *ClarisWorks 3.0*. And if you already own *ClarisWorks*, there'll be discounted upgrade deals available.

The ExpressStyle feature offers a style sheet like the one you'd find in desktop publishing programs such as *QuarkXPress*. Decide the font, size and style you want for the titles in your document, for example, and place those settings into the ExpressStyle palette. You can then go through your document and use these settings wherever you like. ExpressStyle works with any *ClarisWorks* file, not just its word processor documents – and there are pre-defined styles to enable you to make your documents look good with minimal effort.

With the word processor module, you can now divide long documents into sections, using different format settings in each section. The Mail Merge facility now has a useful preview option, enabling you to see how your letter looks before you print it out. And you can save a document in the HTML format that's used on the World Wide Web – so you can actually create your own Web pages ready to put on the Internet.

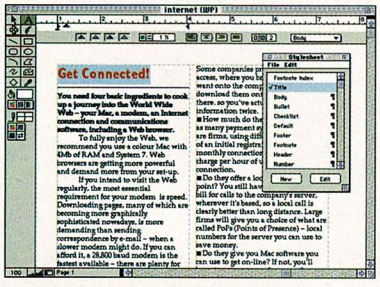
The database module now offers a List View option, so you can see lots of information at once in a simple row and column structure. You can use the FastReport feature to make your own search options and save them for use another time. Meanwhile, the spreadsheet module offers the facility to fill out row or column headings automatically – and this feature can be used for month by month headings for bookkeeping, for example.

There are 500 pieces of clip art ready to use and an increased range of Assistants, the automated helpers that carry out common tasks for you. New Assistants include Home Finance, which can calculate whether you can afford that car or mortgage.

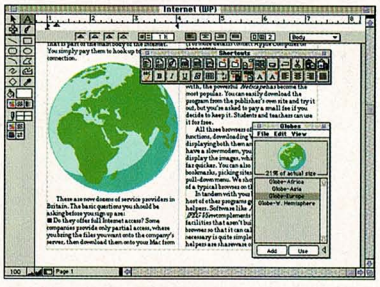
The whole of *ClarisWorks* has been overhauled to improve its ease-of-use – with new toolbar and ruler options – without making it too different from the version you already own. Look out a full review in MACFORMAT soon.

- **Price: expected to be around £120.**
- **Out: September.**
- **Requires: Mac II or better with System 7 and 4Mb of RAM.**
- **For more details contact Claris on 0181 756 0101.**

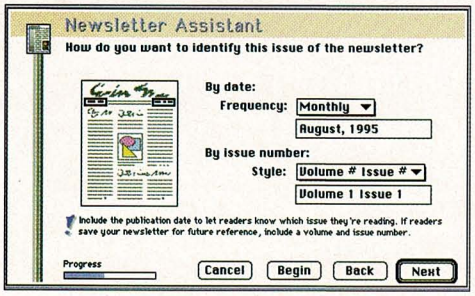
MAIL MERGE
For a closer look at how to make the most of Mail Merge in *ClarisWorks*, see our guide on page 86.



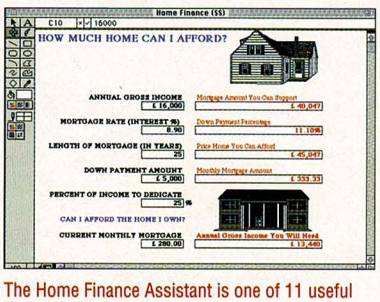
The latest version of *ClarisWorks*, due in September, includes DTP-influenced style sheets for easy type styling.



ClarisWorks 4.0 offers a Shortcuts toolbar, enabling you to complete everyday tasks at a touch of a button.



There will be an increased range of Assistants and you can use any of them with a simple set of multiple choice questionnaire forms to fill in.


Home Finance ($)
HOW MUCH HOME CAN I AFFORD?
ANNUAL GROSS INCOME
MORTGAGE RATE (INTEREST %)
LENGTH OF MORTGAGE (IN YEARS)
DOWN PAYMENT AMOUNT
PERCENT OF INCOME TO DEDICATE
CAN I AFFORD THE HOME I OWN?
CURRENT MONTHLY MORTGAGE

The Home Finance Assistant is one of 11 useful templates designed to help you carry out commonplace tasks – like figuring out your mortgage payments, for example.

NEW FOR THE MAC

Quick 'N' Easy

Now Software, best known for their utility suites like *Now Contact*, are offering a mini-selection of practical utilities for the knock-down price of £32.90. *Quick 'N' Easy* includes *Fonts*, which changes the Fonts menu that's in many of your programs so you can see what the fonts look like. *ClarisWorks* performs a similar feat, but few other programs do.

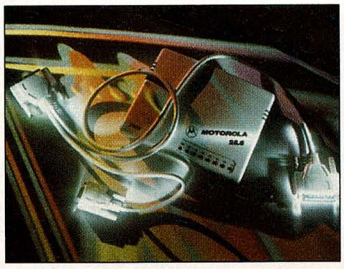
FolderMenus gives your Mac 'pop-up folders'. If you drag a file icon over to a folder, a menu will appear listing all the other folders inside – so you can place your file just where you want without opening lots of windows.

Super Boomerang offers an improved file searching facility, including extra options for finding files and folders while you're using an Open or Save dialogue box.

Quick 'N' Easy comes on a CD-ROM. It's actually a cut-down version of *Now Utilities 5.0*, and there's a discount upgrade offer available. For more details contact Now Software on 01525 237100.

Motorola Modem

The 3400 Pro is the first attempt by Motorola to create a low-cost modem for a wider market after years of catering only for big business. It's capable of transmitting at speeds up to 28,800 bps – the fastest a modem can do at the moment. Priced at around £218, the 3400 Pro comes with fax and communications software that's designed to be as easy to use as possible. For more details contact Motorola on 01293 401628.



Cruise around the Internet at an impressive 28,800 bits per second with the £218 Motorola 3400 Pro.

Hitachi Monitor

The latest 17-inch monitor from Hitachi costs less than its predecessor, while offering improved features. At £752, the CM1711 can display a picture at up to 1,280 by 1,024 pixels at a frequency of 75Hz – meaning next to no flicker on your screen. There's a built-in on-screen display feature to help you adjust the monitor's settings easily. The CM1711 succeeds the 17MVXPlus. For more details contact Hitachi on 0181 849 2000.

Scanner bundles

The new Agfa StudioScan IIsi has had a package of software added. For £1,099, the scanner comes with the full version of *Photoshop 3.0*, *Omnipage Direct* Optical Character Recognition software and a pack of Agfa's own scanner utilities. There's a £993 bundle available where the main program is *Photoshop LE 2.5*, a less powerful version. For more details contact Agfa-Gevaert on 0181 560 2131.

Iomega ZIP Drive

Just when you thought you might be stuck with slow, uneconomical floppy disks forever, along comes a cheap new system that could well have what it takes to become a new standard for data storage.

The Zip Drive uses a new design of disk that is only a little larger than a floppy disk, but can store up to 100Mb. You'd have to buy seven boxes of floppy disks to get anywhere near to storing that amount. And yet you can buy a Zip disk for the bargain price of around £17.50.

On top of that, Iomega claim that their system is almost as fast as a hard drive. It can send copy data across at up to 1.4Mb a second – the contents of an entire floppy every second, in other words. The drive simply plugs into the Mac's SCSI connection, while the software to run the disks and make backups is provided.

So with the drive costing just £176, can the Zip system rise to the top against rivals like the well-established SyQuest cartridges? It's off to a good start, with healthy sales in the United States. And Power Computing – the first company to sell Mac-compatible computers under Apple's licence scheme – will be offering Zip drives in their models shortly. Perhaps the days of the floppy are numbered.

- **Price: £176 for drive, £17.50 per 100Mb disk.**
- **Out: now.**
- **Requires: Mac SE or better with System 6.0.7 (System 7 recommended) and 4Mb of RAM.**
- **For more details contact Iomega on 0800 898563.**

SCREEN CUTS

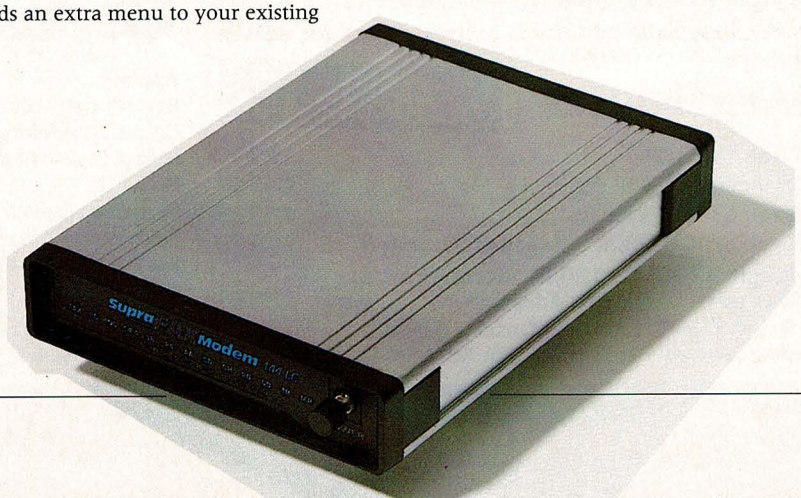
The prices of Apple's Multiple Scan Displays have been reduced. The 17-inch model now costs around £820, while the 20-inch Multiple Scan will set you back about £1,640. For more details contact Apple on 0800 127753.

Supra 144LC

With the increased popularity of communication services like the Internet, the modem is fast becoming an essential part of any good Mac set-up. And modems are getting cheaper all the time. At only £140, the Supra 144LC is an economical way to get your Mac on-line.

Its top transmission speed is 14,400 bits per second, either when using on-line services or sending and receiving faxes. The software that comes with the 144LC includes *FAXcilitate*, which adds an extra menu to your existing programs, enabling you to send a fax without leaving your word processor, for example. There's also the software you need to get onto CompuServe, a leading on-line service – and an offer to get several hours use for free to try it out for yourself.

- **Price: £140.**
- **Out: now.**
- **Requires: Mac II or better with System 7 and 4Mb of RAM.**
- **For more details contact Computers Unlimited on 0181 200 8282.**



PD SYSTEM

The PD System from Panasonic is a combined quad-speed CD-ROM and optical disk drive. What this essentially means is you can record onto the CD. The drive costs £645. For more details contact Ideal Hardware on 0181 286 5000.

HAPPY BIRTHDAY

Welcome to Callhaven's Birthday Party! 10 Years of blowing the competition away!

It's our 10th Birthday but you're

NEW PowerMac 9500 Systems!

PowerMac 9500 120MHz
PowerPC 604 Processor, Fast 32Bit PCI Bus Architecture,
16Mb RAM, 1 Gb Hard Disk,
Internal CD-ROM
£3799

PowerMac 9500 132MHz
PowerPC 604 Processor, Fast 32Bit PCI Bus Architecture,
16Mb RAM, 2 Gb Hard Disk,
Internal CD-ROM
£4499

Upgrade to on-site warranty! - Call for details

NEW Performa Mac Deals!

Performa 6200/75 8/500,
Quad Speed CD, Apple MultiScan 15" Display,
Design Keyboard **£1245**

Performa 6200/75 8/500,
Quad Speed CD, Apple MultiScan 15" Display, Design Keyboard,
ClarisWorks 3, 5 software packages & 7 CD-ROMs. **£1299**

Performa 6200/75 8/500
Quad Speed CD, Apple 14" Display, Design Keyboard &
Powered Speakers, ClarisWorks 3, 5 extra software packages
& 7 CD-ROMs **£1295**

Performa 5200/75 8/500
Quad Speed CD-ROM Drive, Built-in Display,
Apple Design Keyboard, and ClarisWorks 3 ..... **£1269**

Performa 5200/75 8/500
TV-in, Quad Speed CD, Built-in Display, Design Keyboard,
ClarisWorks 3, 5 extra software packages & 8 CD-ROMs. **£1549**

Mac CPUs

Call Us Free On 0800 242 444

Quadra 630 4/250 CPU Only ..... SPECIAL OFFER £699

PowerMac 6100/66 8/500	£1099
PowerMac 6100/66 8/500/CD	£1299
PowerMac 7100/80 8/350	£1649
PowerMac 7100/80 8/700/CD	£1935
PowerMac 8100/100 8/700	£2425
PowerMac 8100/100 16/700/CD	£2785
PowerMac 8100/100 16/1Gb/CD/AV	£3099
PowerMac 8100/110 16/2Gb/CD	£3499

SPECIAL OFFER
Workgroup Server 60 8/500/CD + AppleShare 4 ..... £999

Performa Bundles

5200 Bundles

8/500/CD/ClarisWorks 3/Apple Design Kbd	£1269
8/500/CD Plus/ClarisWorks 3/Apple Design Kbd	£1339
12/500/CD Plus/CDTV/Apple Design Kbd	£1549

6200 Bundles

12/500/CDTV Plus/Apple 15" Monitor	£1499
12/500/CDTV Plus/14" Monitor/Speakers	£1499

All Plus versions have additional software - ask for details.

PowerBooks

Call Us Free On 0800 242 444

PowerBook 150 4/250	£719
PowerBook 520 4/240	£1199
PowerBook 520C 4/240	£1735
PowerBook 520C 12/320 + Express Modem II	£2229
PowerBook 520C 12/320/Modem Bundle with leather carry-case & Tele Adaptor Kit	£2350
PowerBook 540C 12/500/Modem Bundle with leather carry-case & Tele Adaptor Kit	£3499

Displays & Video

Apple Macintosh 14" Colour Display	£245
Apple 15" Multiple Scan Colour Display	£285
Apple 17" Multiple Scan Colour Display	£619
Apple 20" Multiple Scan Colour Display BEST BUY	£1499
Sony CPD-15SF 15" Multiscan (inc Adapter)	£339
Radius Intellicolour 20" ERGO Display	£1399
SuperMac 21" TXL Monitor	£1525
Radius Intellicolour 20" + PrecisionColor Pro 24X	£1999
Radius Intellicolour 20" + LeMans GT	£2299

Storage

Call Us Free On 0800 242 444

SyQuest 88Mb + Cartridge + SCSI Cable	£245
SyQuest 200Mb + Cartridge + SCSI Cable	£359
SyQuest 270Mb + Cart + SCSI (not 44,88,200 compatible)	£349
Apple CD300e Plus CD-ROM Drive	£189
d2 Dual Speed 2X 2M CD-ROM Drive	£199
d2 Quad Speed 4X 2M CD-ROM Drive	£269

Call us with your Internal/External drive requirements!

Output

Call Us Free On 0800 242 444

Apple

StyleWriter 1200	£209
Colour StyleWriter 2400	£375
Colour StyleWriter 2400 Portable	£375
Personal LaserWriter 300	£449
LaserWriter Select 360	£1099
LaserWriter 16/600 PS	£1599
Colour LaserWriter 12/600 PS 600dpi, 12Mb RAM, Ethernet, Plain Paper, Canon Engine, PS 2	£4999
Tektronix Phaser 140	£899

Hewlett Packard

HP320 with Cut Sheet Feeder	£219
DeskWriter 540	£229
DeskWriter 660C	£365
LaserJet 4ML	£799
LaserJet 4MP	£925
LaserJet 4MP Plus	£Call
LaserJet 4MV	£2099
LaserJet 4Si	£2299
Lexmark Optra 1200dpi, 10Mb & Ethernet	£2599

"Call us free on 0800 242 444!"

Callhaven DIRECT

Callhaven DIRECT

Call us now on ☎ Freephone 0800 242 444

TO US!

getting all the surprises!

PowerMacs 6100/66 Special Deals!

8/500, 14" Apple Monitor & Design Keyboard..... **£1,345**

8/250 CPU Only..... **AMAZING PRICE £899**

8/250 with CD-ROM Drive..... **ONLY £999**

P/Mac 6100 DOS compatibility card (ask for details of RAM requirements)... **£399**

Performa 630Plus, with 8Mb RAM, 350Mb HD, CD-ROM Drive, TV/V-input, 15" Monitor, free Software & 7 CDs... **Ltd. Offer £1199**

Performa 630 DOS, 12Mb RAM, 500Mb HD, CD-ROM, Apple MultiScan 15" Monitor... **£1445**

SUPERMAC **Monitor Special!**

SuperMac 21TXL & Thunder 4 GX1600 Bundle... **£3999**

Apple WorkGroup Server 60

8Mb RAM, 500Mb HD, and CD-ROM Drive. Use it as a server or as a stand-alone Mac!

.....£899

AWS 60 shown with optional 14" AV Display and Extended keyboard

NEW PRODUCT!
Epson Stylus Pro XL - Oversize A3, 720dpi Colour Printer..
£1525

Software

Call Us Free On 0800 242 444

PhotoShop 3.0 BEST BUY	£349	Microsoft Word 6.0	£245
Adobe Premiere V.4	£435	Microsoft Excel	£245
Adobe Illustrator	£279	Painter 3.0	£275
Freehand 5	£319	Powerpoint	£279
Pagemaker 5	£449	Quark XPress 3.3	£580
Persuasion	£249	Quark XPress 3.3 (Native)	£649
Claris Filemaker Pro	£99	VideoVision 2.0	£1749
Claris Works	£99	VideoVision Studio 2.0	£3999
Microsoft Office	£359	Call if you can't see what you need!	

Look at the extras that you get from Callhaven Direct!

1. Mac & Windows Training
2. Service Support Line
3. Commercial Finance
4. Maintenance Contracts
5. Saturday Telesales Service

Modems & Comms

US Robotics 14,400 Mac'n'Fax Modem	£149	US Robotics Sportster 28,800 Modem	£210

Scanners

Call Us Free On 0800 242 444

AGFA StudioScan II + OmniPage Direct Bundle	£649
AGFA StudioScan II Transparency Adaptor	£269
AGFA Arcus II + Tranny Adaptor + Full Photoshop	£2299
Epson GT6500 + PhotoShop LE	£465
Epson GT8500 + Photoshop LE	£569
Epson GT9000 + Photoshop LE	£779
Epson GT9000 + Full PhotoShop	£849
UMAX Vista S6 + PhotoShop LE	£Call
UMAX Vista S8 + PhotoShop LE	£Call
UMAX Powerlook Pro + Tranny Adaptor + Full Photoshop	£Call

Do you work in education or are you a student? If so, read on...

At Callhaven we have a dedicated Education team to help you in your computer purchases. We can offer you a competitive price and all of our experience in making I.T. work for you. There are many special prices available for software and certain third party equipment. To qualify for Education pricing you must work or study in one of the following areas: Schools, LEAs, Colleges of Further and Higher Education, Universities, Hospitals with medical schools attached, certain Education Charities, Museums and Churches.

Call the Education Hotline on 0171 775 4292/1
Or E-Mail us on education@callhaven.co.uk

See us on Internet Shopping Mall!
www.peoplebank.co.uk
Or E-Mail us at
direct@callhaven.co.uk

You can fax us on 0171 410 9193
Commercial Hotline
☎ 0171 410 9191

SWITCH Access VISA AMERICAN EXPRESS

Callhaven DIRECT

- Authorised Reseller
- Authorised Education Reseller
- £16 Million plc
- 33,000 transactions last year
- 45% Growth '93/94
- New £200,000 Order Processing System - *we're more efficient!*
- Transax fast clearing of cheques
- Low cost delivery
- Microsoft Award-Winning Training Centre
- UB Networks, Oracle and SUN Integration
- If you're a regular Mac-buyer, Callhaven can now offer 28-day account facilities (subject to status)

BusinessCentre

Callhaven plc, 74 Rivington Street, London EC2A 3AY

All prices are quoted exclusive of VAT and delivery. E & O E. All trademarks are recognised. Photographs are for illustration purposes only. Stocks are strictly limited on all our bundle deals. Call us today to avoid disappointment! Leasing deals are only available to business users only. There is a £5 handling charge on all orders under £100.

Pre-configuration, training, installation, consultancy & networking are all available - Call 0171 410 9191 for more information.

Education Hotline 0171 775 4291/2

MACROSCOPE

This month MACFORMAT looks at medical CD-ROMs and Internet health coverage, as well as reporting on the recent Video Positive exhibition of computer art in Liverpool.

Medic!

There's more to multimedia than entertainment – the medical community is one example of a professional group whose work is being transformed by the new technology.

In the space of a few years, multimedia has become king in the Mac industry. CD-ROM and, increasingly, the World Wide Web are changing the way millions of Mac users think about their machines. An example of this can be found in medicine, where multimedia is offering new opportunities for pooling knowledge.

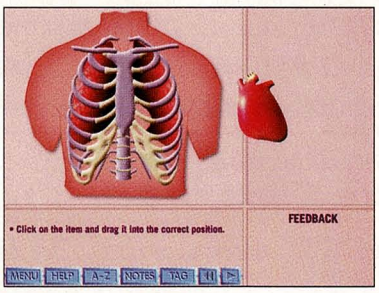
Functional Anatomy of the Heart is the first of a proposed set of modules called *The Cardiovascular System Series*. Across two CDs, it provides a detailed guide to the heart. Extensive notes and professional photography are accompanied by a multimedia training course. As the medical student, you use the knowledge you've gained to complete interactive quizzes. Some are not unlike the games featured in the discs covered in our round-up of medical multimedia for the home this issue (page 104). But the purpose behind the play is more serious.

The American firm ADAM Software produces education software for schools, colleges and medical schools. Its modular programs combine to offer a full portrait of the human body at three levels of expertise. At the top level – *ADAM Comprehensive* – the disc costs £1,760. ADAM are now using the resources they've built up to bring their brand of education into the home with *ADAM: The Inside Story*. It's a CD-ROM that gives a basic and witty introduction to the body, while using some of the material employed in ADAM's more serious discs (see MACFORMAT's review on page 105).

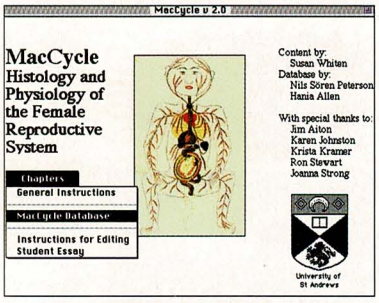
The Internet is also proving useful for medical training. BioNet is a British co-operative where professionals and students share their knowledge, creating multimedia for others to use and learn from. There's a whole range of ideas being discussed, including using the Maxis game *SimLife* as an aid to studying genetics. Also on BioNet are *MacCycle* and *MacGut*, which were created at the University of St Andrews using *HyperCard*, Apple's pioneering, simple multimedia and presentation program. *MacCycle* explores the menstrual cycle, with animations that illustrate the hormonal changes in the body. *MacGut* maps out the intestinal tract, showing how it breaks up into different areas.

Elsewhere on the Web there's the Virtual Hospital, a mammoth project co-ordinated by the University of Iowa. It's a resource for doctors and nurses, offering video and audio material on patient care. There's a list of typical cases with symptoms and X-ray shots to analyse, for example. The Virtual Hospital also includes information on good health for the public.

The sharing of knowledge and resources in these projects is a vivid example of how multimedia technology can create or develop a sense of community among people, whatever the distance between them. **RICHARD HILL**

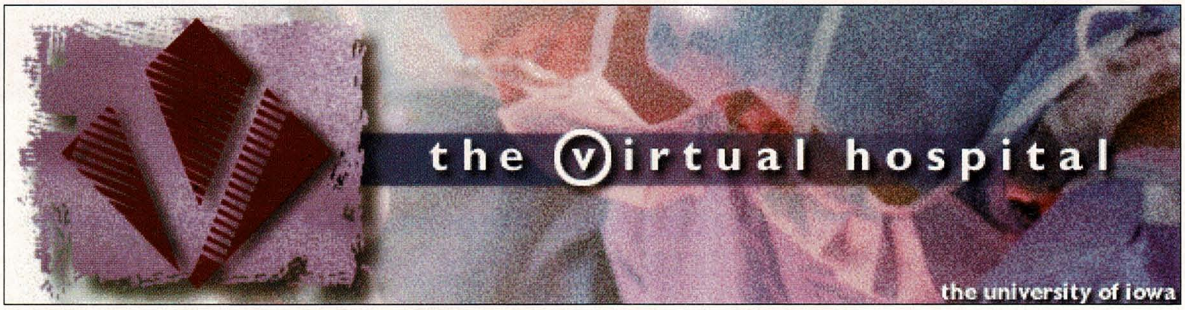


It uses the same principles as many games at times, but the *Functional Anatomy* CD-ROM is a serious aid for doctors.



MacCycle uses off-the-shelf Mac software to provide a careful analysis of the female body for medical students.

Doctors can use Virtual Hospital case studies to test their own learning, including making analyses based on x-rays.



The Virtual Hospital uses the Internet to offer a giant community health project for professionals and the public alike.

BODY CONTACT

For more details on *The Cardiovascular System Series*, contact Andromeda Interactive on 01235 529595. For more details on the ADAM series of education CD-ROMs, contact Churchill Livingstone on 0131 535 1751.

WEB SEARCH

If you have a Web browser, you can view BioNet at:
http://www.leeds.ac.uk/bionet.html
and the Virtual Hospital at:
http://indy.radiology.uiowa.edu/VirtualHospital.html

Video Positive '95

Computer art is more popular than ever. Video Positive, an exhibition organised by Liverpool-based Moviola, aims to make it even more accessible to the public and artists alike.

Too many 'fine' artists the concept of 'computer art' has always represented a contradiction in terms – like 'military intelligence', or 'political integrity'. But as creating digital images becomes more sophisticated, artists are increasingly turning to computers and other electronic media. If you want to see some of the best electronic art in Europe, Video Positive, organised by Moviola in Liverpool once every two years, is the event to attend.

Unlike previous Video Positive events, where Amigas featured heavily, Video Positive '95 was predominantly Mac oriented with approximately half of the artists involved using Macs to some extent in their work. The installations ranged from *Deserter* by Marion Kalmus – a large back-projected and Mac-synchronised display of wide-angle slides – to *The Ark* by Marty St James and Anne Wilson – a series of monitors displaying partial human/animal morphs. But the most approachable work for the average non-artist had to be the CD-ROMs.

Here are a few samples of the work on show at Video Positive:

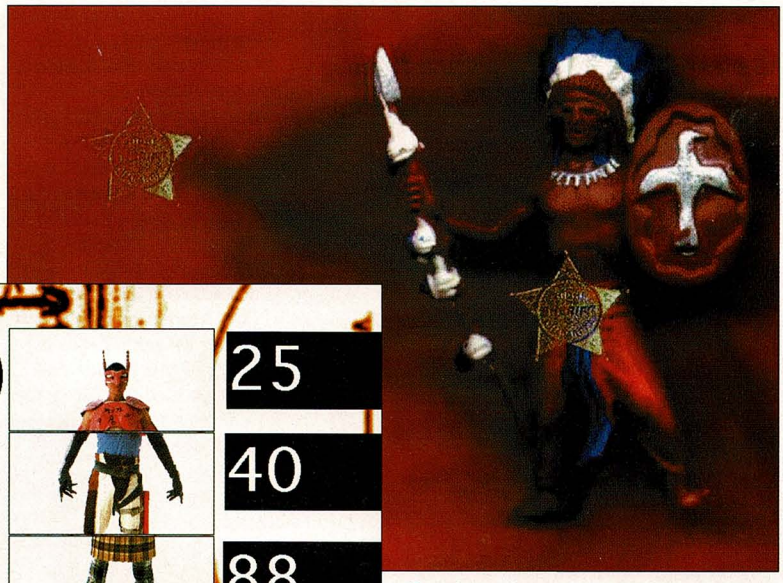
■ *Anti-rom*, published by SASS Collective (UK) – 'a cluster of randomly accessed audio-visual engines' including: *Soundspaces* – ready-made tool boxes for IJs (interactive jockeys); *Screen Theory* – interactive video-texts by Sadie Plant and Nick Land; and *Underground* – audio-visual loops that merge typography and dance music. *Anti-rom* was funded by the Arts Council, so it can be obtained from SASS on 0171 727 0812 for a mere £5.

■ The *Biomorph Encyclopedia* by Bobuhiro Shibayama (Japan) – using morphing techniques, this is an animated reworking of Muybridge's famous photographic studies of human and animal locomotion. *Biomorph Encyclopedia* is published by 4D and available from Moviola at £45.

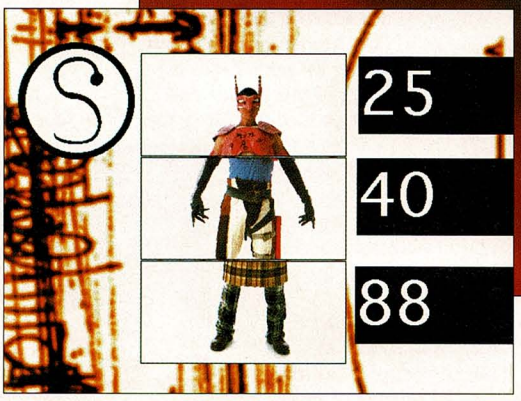
■ *Die Veteranen* by Eichhorn, Ihmels, John and Touma (Germany) – 'an extraordinary game' with no purpose other than to 'explore an electronic dream world'. Published by Systhema, *Die Veteranen* is also available from Moviola at £39.99.

■ *The Toy Box* – various artists (UK). Featuring 20 artists who have all created small scale interactive artworks on the theme of a toy box, *The Toy Box* demonstrates the potential creative uses of this newest medium. Funded by the Arts Council, *The Toybox* is published by Moviola at only £15.50.

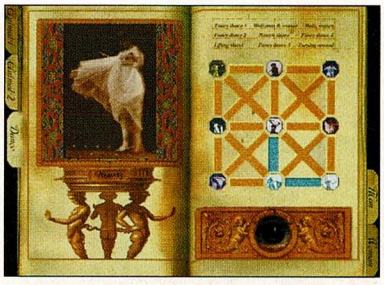
BRIAN LARKMAN



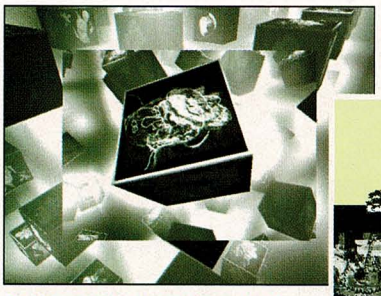
'Soundspaces' – ready-made tool boxes for IJs (interactive jockeys). Featured on *Anti-rom*.



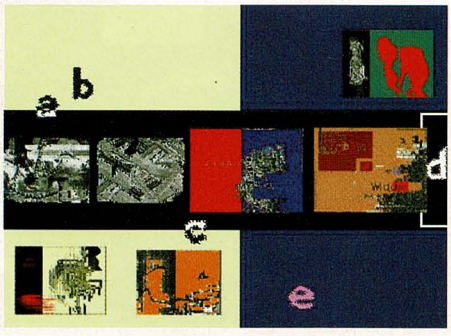
'Underground' – audio-visual loops merge typography and dance music. Featured on *Anti-rom*.



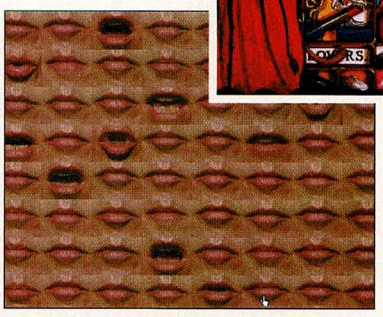
From *Biomorph Encyclopedia*, various animal and human morph animations are presented on these pages as still-icons. You can select groups of these to play back linked together as a sequence.



Die Veteranen is a branching series of gateways to interactive music/soundscapes and visual ambiguities. Each object or feature in the drawings reacts to a click, playing an animated sequence or moving on to the next gateway.



'The Desktop Theatre' by Jon Dovey. (*The Toybox*.)



'Mouth Trap' by Charlotte Corke. (*The Toybox*.)

M.I.C.E.

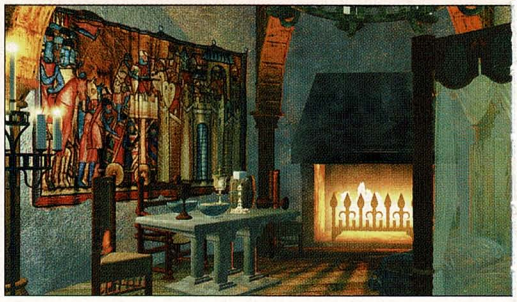
Moviola are currently seeking funding for a Moving Image Centre for Exhibition, to be based in Liverpool. This would be the first of its kind in the UK.

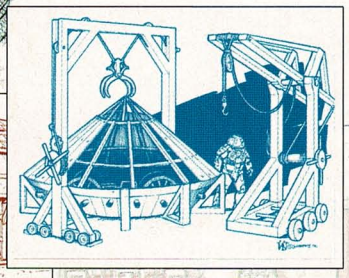
MOVIOLA

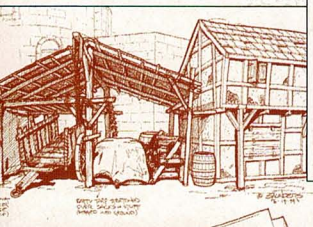
Moviola are a registered charity set up to promote and commission electronic-based art. Dedicated to all things electronic art related, they can be contacted on 0151 709 2663 or faxed on 0151 707 2150 or e-mailed: moviola@cityscape.co.uk

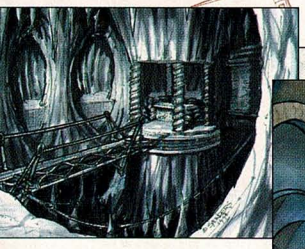
Time Lords

Interactive movies could be the future of games! Richard Hill reports on how the Mac figures in this giant production.









Each setting within *Buried in Time* was carefully worked out, with the designers heavily researching the different time periods.

One of the most successful Mac games to date is *The Journeyman Project*, a grand science fiction adventure. Its sequel is the most ambitious project yet mounted by its creators, Presto Studios. *Buried in Time* joins a new wave of interactive movies – programs that are as much films as they are games.

The modern Mac is capable of showing animation that looks just as real as film. The interactive movie represents an attempt by game designers to take advantage of this power and bring the lavish production values and storytelling of Hollywood films onto your Mac's screen. The basic concept is to create games that are more involving and exciting than ever before by making them seem more real.

Michel Kripalani: '22 months later you have your adventure game!'

MACFORMAT talked to Michel Kripalani, the president of Presto, about the creation process of *Buried in Time* – an unorthodox mixture of new computer techniques and traditional film-making.

Making history

The core team behind *Buried in Time* is Michel Kripalani, writer Dave Flanagan and designer Phil Saunders. Kripalani says, 'The three of us sat down over about five months and came up with the basic document of 30 or 40 pages that outlined the basic story. Once we had that, we started to flesh that out – writing dialogue and researching time periods.'

In the game, you are Agent 5, a time travelling lawman who's framed as part of a plot to rewrite history. You have to prove your innocence by visiting key time periods and discovering the truth behind the lies.

The look of each time period had to be researched and evolved on paper early on – careful planning now would inevitably save much waste later. Phil Saunders played an absolutely crucial part here, drawing hundreds of sketches. 'Phil has a second full-time job. He works at Nissan designing cars – neither job is one where you can sit on your hands and relax.'

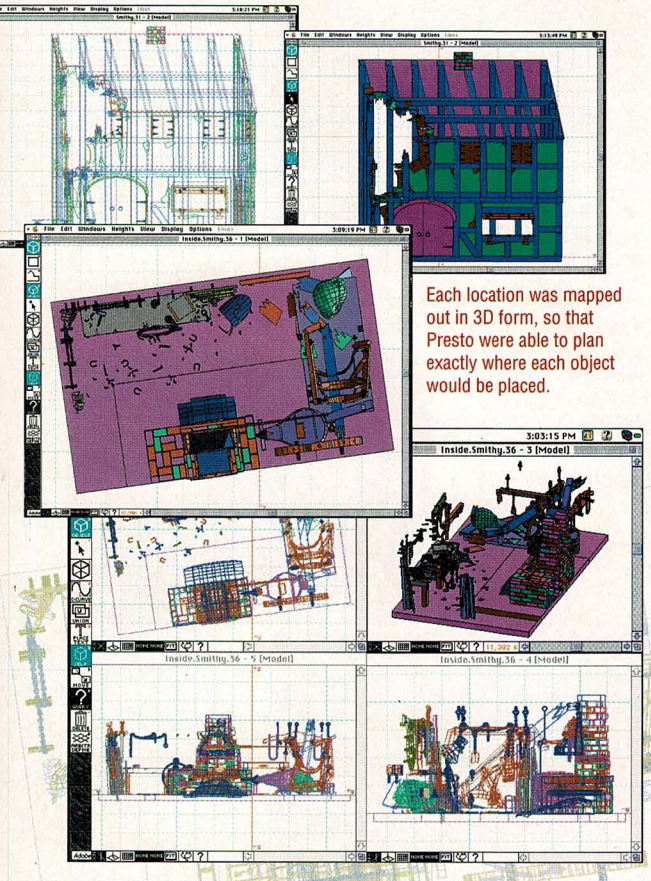
3D vision

As Saunders' work reached a more polished stage, the designs were passed over to the 3D team. It was their task to take the drawings and make them seem real, by taking them into the Mac. Every room, and every object in each room, was made into a 3D form. Kripalani says of the team: 'They primarily work in *form•Z*. Basically, what they do is like an architectural drawing for the building.'

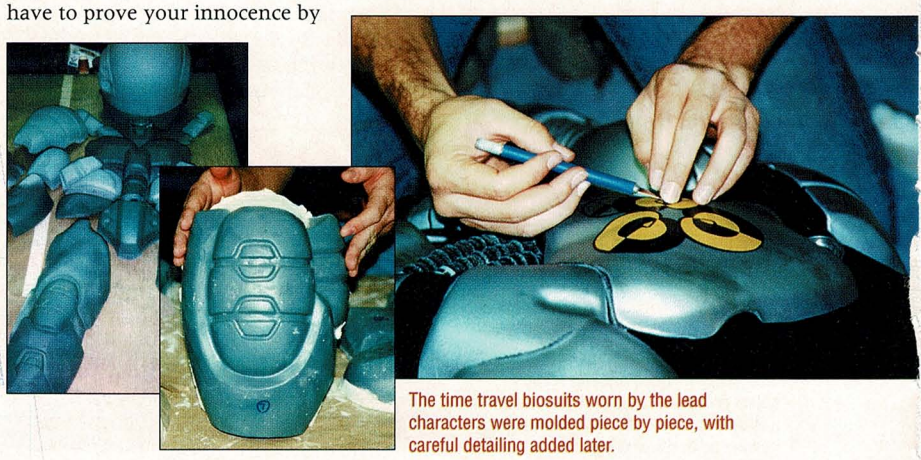
The 3D modellers' job can be compared to those of the set and prop designers for a film, but with a crucial difference. 'In film you know all the camera shots [in advance] – we don't, so we have to make all the objects from all angles.'

High fashion

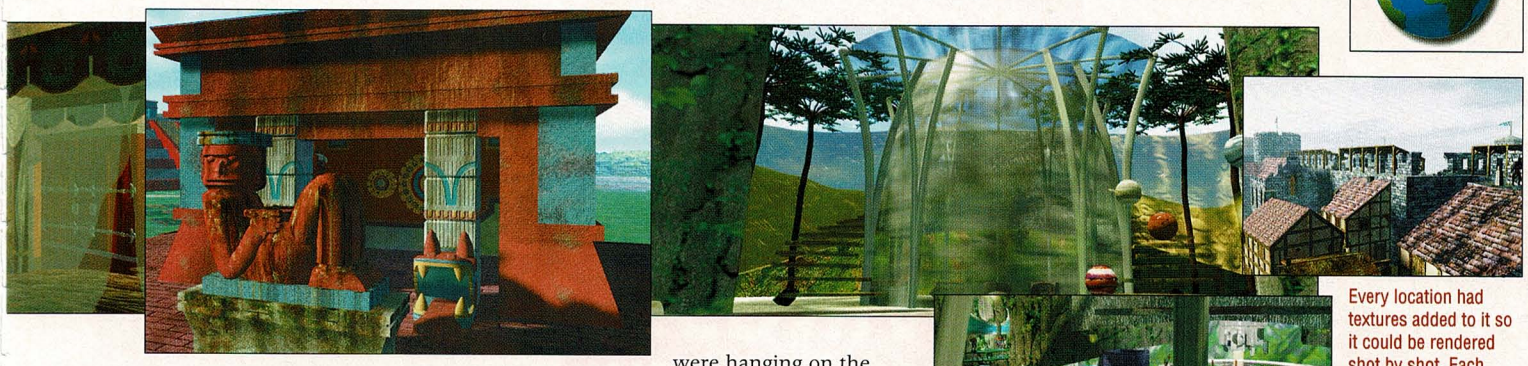
More hands-on 3D skills were needed as costumes began to be pieced together for the filming. The actors in the game would be placed within the Mac-made 3D environment at a later date, but before that they had to play their parts before a camera. Costumes



Each location was mapped out in 3D form, so that Presto were able to plan exactly where each object would be placed.



The time travel biosuits worn by the lead characters were molded piece by piece, with careful detailing added later.



Every location had textures added to it so it could be rendered shot by shot. Each frame took only a few minutes – but there were over 30,000 to create!

ranged from medieval armour to futuristic 'bio-suits'.

Make it real

As preparation for filming continued, the 3D shapes were given proper forms in a lengthy process. 'Our texture map artists work solely in *Electric Image*,' says Kripalani. 'They create 2D maps to wrap around the 3D geometry that make them look real.''

Once the choice of textures had been made, the scenes were mapped out meticulously, so each location looked solid and had realistic lighting. Then each animated sequence had to be rendered frame by frame. 'We have half a dozen PowerMac 8100s just rendering, 24 hours a day. Each picture takes an average of six to eight minutes to render – which seems pretty quick, until you realise that we had something like 30,000 frames to render.'

Before the camera

The actors were filmed in front of a blue screen – the tried-and-tested method of superimposing people onto a background you can't physically build. *VideoVision Studio* and *CoSA After Effects* were used to convert the footage of the actors into Mac video, then merge it with the Mac-rendered backgrounds. The Mac can be set so everything blue is replaced with the image of the chosen background.

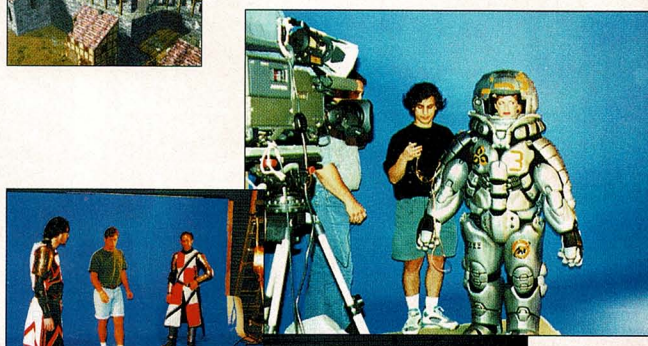
Creative planning ensured the computer animation and film blended seamlessly. 'We did custom lighting for each stage that matched the world they were going to be in. Say you have a knight standing in a hallway, then he walks over to you. We knew in our 3D world where the torches were hanging on the wall. We set our camera lights up so the character was walking in and out of the light. And we put a flicker box on those lights – so as he walks towards you, he's walking in and out of pools of flickering yellow torchlight.'

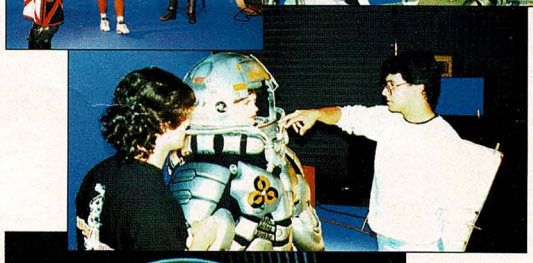
It's a wrap

'22 months later you have your time travel adventure game!' Kripalani says Presto has learned some vital lessons through working on *Buried in Time*. 'We thought we were doing a huge amount of planning – eight months before we even started on production – and it wasn't enough. You have to have the entire project 100% planned out on paper before you dive into it – or it just grows and grows. 'It's so easy to say "Wouldn't it be cool if we had this?" and you spend three months on something you only gave yourself one month to do. That's a trick I don't think anyone's got the hang of, but we're going to have to.'

The growing number of interactive movies, and the amount of hard cash needed to make them, is bringing major film companies into the picture. 'Hollywood can bring a lot to the games industry,' says Kripalani. 'High production values, writing, good acting. What scares me is I've seen a lot of production companies dive in and say "Because we know how to make films, we know how to make games" – and that is dead wrong.

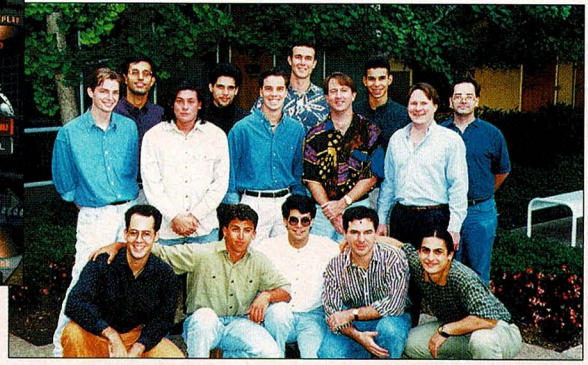
'But film companies can help us do it cost effectively. There are too many projects coming out with ridiculous budgets – we're getting this huge monster game done for under half a million dollars.' **MF**





Presto Studios became a mini-Hollywood as filming began, with costume and make-up designers joining actors and directors.

The combination of live action and various types of Mac graphics needed a big team to make it work. Watch for MACFORMAT's verdict on the result soon!



NEW LOWER PRICES...

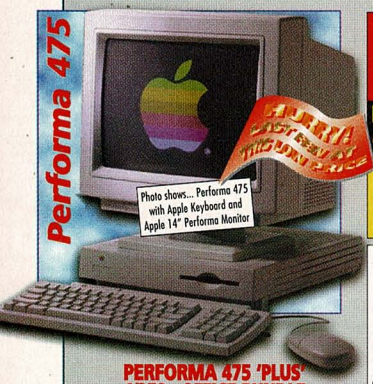
68040 MACS

Apple Authorised Reseller & Service Provider

RED HOT SIZZLING SUMMER SAVINGS... FROM SUPER GH!

NEW LOWER PRICES...

POWERMACS



PERFORMA 475 CPU, DISPLAY, KEYBOARD AND GH SOFTWARE

PERFORMA 475 4/250 BUNDLE...

£795 (£934.13 inc. VAT)

Supplied with... Sys 7.5 Software, At Ease, PC Exchange, Claris Works 2.1, Manuals, Mouse, Connecting Cables etc and including... Apple 14" Performa Plus Colour Monitor and an Apple Design Keyboard

DON'T CONFUSE THESE PRICES WITH THOSE NOT INCLUDING GH BUNDLES!

PERFORMA 475 'PLUS' 4/250 - OFFICE BUNDLE

'Quadra' performance featuring the ultra FAST 25MHz 68LC040 CPU with System 7.5. This Mac will dash through your workload QUICKLY!.

GH Performa 475 *'PLUS'* OFFICE Bundles are ADDITIONALLY SUPPLIED WITH...

FREE SOFTWARE BUNDLE... *Tutorials, Mavis Beacon Teaches Typing, Spectre Supreme (Game), Click Art Performa, MacGallery Clip Art Treasure Pack PLUS... HOME PUBLISHER (DTP), TOUCHBASE and DATEBOOK PRO*

PERFORMA 630 CPU WITH DISPLAY & KEYBOARD OPTIONS + GH SOFTWARE

PERFORMA 630s FROM...

£599 (£703.83 inc. VAT)

ALL GH Performa 630 Bundles are supplied with... System Software, At Ease, PC Exchange, Claris Works 2.1, Mavis Beacon Teaches Typing, Spectre Supreme, Click Art Performa, MacGallery Clip Art, Manuals, Mouse, all Connecting Cables etc and options for Apple 14" or 15" Colour Monitors and Apple Design Keyboard etc.

NEW... IBM PC Compatible 630 includes a 486 DOS Card operating at 66MHz and DOS 6.2 Software. (Windows available separately).

STANDARD PERFORMA 630 SYSTEMS & SOFTWARE

Superfast 66/33MHz 68LC040 CPU's! Some feature built in 'Video in TV Tuner' which can input video from VCR's etc. and cut & paste between the two, plus... you can also watch TV in a window on your Mac screen. And... now there's even an IBM PC Compatible Model too!

RAM	HD	Built-In	Monitor	CD	Keyboard	Sys	Price
4Mb.	250Mb.	✗	✗	✗	✗	7.5	£599 (£704)
4Mb.	250Mb.	✗	14" Performa Plus	✗	✓	7.5	£879 (£1033)
4Mb.	250Mb.	✗	15" MultiScan	✗	✓	7.5	£969 (£1139)
8Mb.	500Mb.	✗	15" MultiScan	✓	✓	7.5	£1049 (£1233)
8Mb.	350Mb.	TV	15" MultiScan	✓	✓	7.5	£1199 (£1409)
12Mb.	500Mb.	DOS	15" MultiScan	✓	✓	7.5	£1549 (£1820)

PERFORMA 630 'PLUS' MULTIMEDIA BUNDLE

GH Performa 630 'PLUS' Bundles below are ADDITIONALLY...

SUPPLIED WITH... Tutorials, Mavis Beacon Teaches Typing, Spectre Supreme (Game), Click Art Performa, MacGallery Clip Art Treasure Pack PLUS... GROLIER MULTIMEDIA ENCYCLOPAEDIA, 1994 GUINNESS DISK OF RECORDS, MICROSOFT DINOSAURS, ROSETTA STONE POWER PACK, THE SAN DIEGO ZOO PRESENTS THE ANIMALS, BEATRIX POTTER'S THE TALE OF BENJAMIN BUNNY and LEONARDO THE INVENTOR ...on ALL CD ROM!!!

PERFORMA 630 PLUS SYSTEMS...

RAM	HD	Built-In	Monitor	CD	Keyboard	Sys	Price
8Mb.	250Mb.	✗	15" MultiScan	✓	✓	7.5	£1079 (£1268)
8Mb.	350Mb.	TV	15" MultiScan	✓	✓	7.5	£1249 (£1468)
8Mb.	500Mb.	TV	15" MultiScan	✓	✓	7.5	£1319 (£1550)

FREE GH SOFTWARE BUNDLES WITH ALL MAC PERFORMA **'PLUS' PACKS** (see panels left and right)

Look around for the PERFORMA 'PLUS' bundles on this advert and see just how much you get from GH FREE!

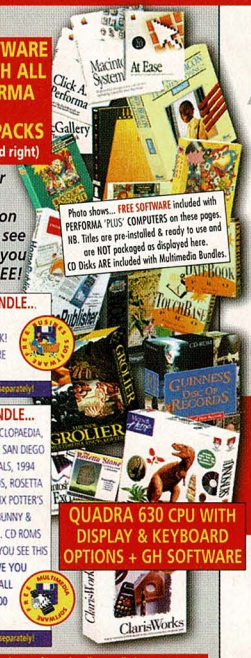


Photo shows... FREE SOFTWARE included with PERFORMA 'PLUS' COMPUTERS on these pages. NB. Titles are pre-installed & ready to use and are NOT packaged as displayed here. CD Disks ARE included with Multimedia Bundles.
At Ease
Click Art Performa
Gallery
Publisher
TOUCHBASE
GROLIER
GUINNESS DISC OF RECORDS
ClarisWorks

HOME OFFICE BUNDLE...

HOME PUBLISHER (DTP), TOUCHBASE and DATEBOOK! WITH ALL GH MACS WHERE YOU SEE THIS LOGO...

WORTH over £500 purchased separately!

MULTIMEDIA BUNDLE...

GROLIER MULTIMEDIA ENCYCLOPAEDIA, MICROSOFT DINOSAURS, THE SAN DIEGO ZOO PRESENTS THE ANIMALS, 1994 GUINNESS DISK OF RECORDS, ROSETTA STONE POWER PACK, BEATRIX POTTER'S THE TALE OF BENJAMIN BUNNY & LEONARDO THE INVENTOR... CD ROMS WITH ALL GH MACS WHERE YOU SEE THIS LOGO... Plus... GH ALSO GIVE YOU CLARIS ORGANISER WITH ALL PERFORMA 5200 AND 6200 POWERMACS TOO!

WORTH over £700 purchased separately!

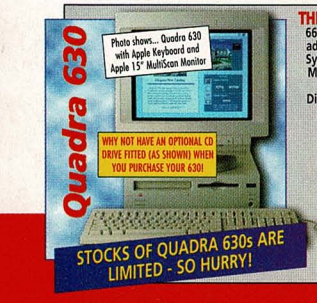
QUADRA 630 CPU WITH DISPLAY & KEYBOARD OPTIONS + GH SOFTWARE

PLUS... With each of the above software bundles you'll also get System Software, PC Exchange, At Ease, Tutorials and Claris Works 2.1 OR 3.0, Mavis Beacon Teaches Typing, Spectre Supreme, Click Art Performa AND MacGallery Clip Art Treasure Pack

GH WYSIWYG...

WITH ALL OUR OFFERS, WYSIWYG... AND WHAT YOU NEED! OUR OFFERS SHOW WHAT'S INCLUDED AND AREN'T STRIPPED DOWN JUST TO GIVE AN ATTRACTIVE HEADLINE PRICE.

GH THE 'CLEAREST CHOICE' FOR YOUR NEXT APPLE!


Quadra 630
Photo shows... Quadra 630 with Apple Keyboard and Apple 15" MultiScan Monitor
WHY NOT HAVE AN OPTIONAL CD DRIVE FITTED (AS SHOWN) WHEN YOU PURCHASE YOUR 630!
STOCKS OF QUADRA 630s ARE LIMITED - SO HURRY!

THE ONLY 68040 MAC WITH FPU!

66/33MHz Full 68040 CPU and FPU for added speed. ALL GH PACKS include... System 7.5, Connecting Cables and all Manuals plus... options for Apple 14" Trinitron or 15" Multi Scan Colour Displays and Apple Design Keyboard.

QUADRA 630 CPU WITH DISPLAY & KEYBOARD OPTIONS + GH SOFTWARE

QUADRA 630s...

FROM JUST... **£599** (£703.83 inc. VAT)

RAM	HD	Monitor	Keyboard	Sys	Price
4Mb.	250Mb.	✗	✗	7.5	£599 (£704)
4Mb.	250Mb.	15" MultiScan	✓	7.5	£979 (£1150)
20Mb.	250Mb.	15" MultiScan	✓	7.5	£1299 (£1526)
4Mb.	500Mb.	15" MultiScan	✓	7.5	£1149 (£1350)
20Mb.	500Mb.	15" MultiScan	✓	7.5	£1449 (£1703)
4Mb.	700Mb.	15" MultiScan	✓	7.5	£1199 (£1409)
20Mb.	700Mb.	15" MultiScan	✓	7.5	£1499 (£1761)
4Mb.	250Mb.	14" Trinitron	✓	7.5	£939 (£1103)
20Mb.	250Mb.	14" Trinitron	✓	7.5	£1259 (£1479)
4Mb.	500Mb.	14" Trinitron	✓	7.5	£1109 (£1303)
20Mb.	500Mb.	14" Trinitron	✓	7.5	£1409 (£1656)
4Mb.	700Mb.	14" Trinitron	✓	7.5	£1159 (£1362)
20Mb.	700Mb.	14" Trinitron	✓	7.5	£1459 (£1714)

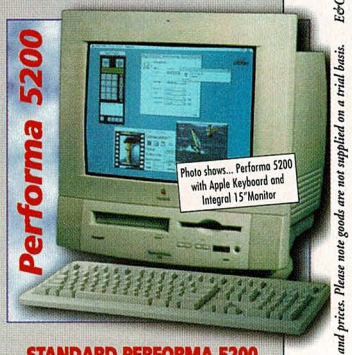
PERFORMA 5200 8/500 CD600i, 15" FST DISPLAY, KEYBOARD OPTION + GH SOFTWARE

PERFORMA 5200s START AT JUST...

£1219 (£1432.33 inc. VAT)

All our Performa 6200's are supplied with... System 7.5.1 Software, At Ease, PC Exchange, NEW Claris Works 3.0, Claris Works 3.0, Mavis Beacon Teaches Typing, Spectre Supreme, Click Art Performa, MacGallery Clip Art, Manuals, Mouse, Connecting Cables, Keyboard option etc.

REMEMBER THE GH BUNDLES WHEN COMPARING PRICES TO OTHER DEALS ON OFFER!



STANDARD PERFORMA 5200 SYSTEM & SOFTWARE

A unique ALL-IN-ONE PowerMac System that incorporates a PowerPC 603 CPU, CD600i Drive, 15" MultiScan FST Colour Display, Stereo Speakers, 500 Mb. Hard Drive, Built-In Microphone and Infra Red Remote Control (TV versions) - ALL IN ONE! Includes... Mouse, Connecting Cables, Manuals & Apple Design Keyboard option

RAM	HD	MONITOR	CD	Keyboard	Sys	Price
8Mb.	500Mb.	15"MS Integral FST	✓	✗	7.5.1	£1219 (£1432)
8Mb.	500Mb.	15"MS Integral FST	✓	✓	7.5.1	£1299 (£1526)

PERFORMA 5200 'PLUS' MULTIMEDIA BUNDLE

GH Performa 5200 'PLUS' Bundles below INCLUDE ALL the software detailed above and then some. GH offer you EXTRA VALUE with the addition of some great software on CD. Both 'PLUS' Packs incorporate the latest Quad Speed CD ROM Drives and the higher spec unit also boasts built-in TV with full infra red remote control of Start Up, Shut Down, TV and CD Functions. Infra red can be used with other 5200s when a TV upgrade kit is added.

SUPPLIED WITH... Tutorials, Mavis Beacon Teaches Typing, Spectre Supreme (Game), Click Art Performa, MacGallery Clip Art Treasure Pack PLUS... GROLIER MULTIMEDIA ENCYCLOPAEDIA, 1994 GUINNESS DISK OF RECORDS, MICROSOFT DINOSAURS, ROSETTA STONE POWER PACK, THE SAN DIEGO ZOO PRESENTS THE ANIMALS, BEATRIX POTTER'S THE TALE OF BENJAMIN BUNNY and LEONARDO THE INVENTOR ...on ALL CD ROM!!! AND... CLARIS ORGANISER 1.0 Vers. 2

RAM	HD	MONITOR	CD	TV	Keyboard	Sys	Price
8Mb.	500Mb.	15" MS Integral FST	✓	✗	✓	7.5.1	£1349 (£1585)
12Mb.	500Mb.	15" MS Integral FST	✓	✓	✓	7.5.1	£1549 (£1820)

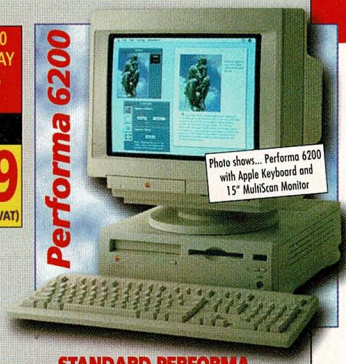
PERFORMA 6200 8/500 CPU WITH CD600i, DISPLAY & KEYBOARD OPTIONS + GH SOFTWARE

6200s FROM...

£989 (£1162.08 inc. VAT)

All our Performa 6200's are supplied with... System 7.5.1 Software, At Ease, PC Exchange, NEW Claris Works 3.0, Mavis Beacon Teaches Typing, Spectre Supreme, Click Art Performa, MacGallery Clip Art, Manuals, Mouse, Connecting Cables etc and, Monitor & Keyboard options and, just like 5200s, FEATURE... the NEW PowerPC 603 CPU for A REAL BOOST IN speed!

REMEMBER THE GH BUNDLE WHEN COMPARING PRICES TO OTHER DEALS ON OFFER!



STANDARD PERFORMA 6200 SYSTEMS & SOFTWARE

All GH 5200s incorporate, CD600i Drive, 500 Mb. Hard Drive, Built-In Speakers (some packs include Stereo Apple Design Speakers), Infra Red Remote Control (TV versions), Mouse, Cables, and Manuals plus Apple Design Keyboard option.

RAM	HD	MONITOR	CD	TV	Keyboard	Sys	Price
8Mb.	500Mb.	NONE	✓	✗	✗	7.5.1	£989 (£1162)
8Mb.	500Mb.	NONE	✓	✗	✓	7.5.1	£1059 (£1244)
8Mb.	500Mb.	14" Performa Plus	✓	✗	✓	7.5.1	£1249 (£1468)
8Mb.	500Mb.	15" MultiScan	✓	✗	✓	7.5.1	£1339 (£1573)

PERFORMA 6200 'PLUS' MULTIMEDIA BUNDLE

When you buy a GH 6200 'PLUS' Multimedia you are also...

SUPPLIED WITH... Tutorials, Mavis Beacon Teaches Typing, Spectre Supreme (Game), Click Art Performa, MacGallery Clip Art Treasure Pack PLUS... GROLIER MULTIMEDIA ENCYCLOPAEDIA, 1994 GUINNESS DISK OF RECORDS, MICROSOFT DINOSAURS, ROSETTA STONE POWER PACK, THE SAN DIEGO ZOO PRESENTS THE ANIMALS, BEATRIX POTTER'S THE TALE OF BENJAMIN BUNNY and LEONARDO THE INVENTOR ...on ALL CD ROM!!! AND... CLARIS ORGANISER 1.0 Vers. 2

PERFORMA 6200 SYSTEMS...

RAM	HD	CD	TV	Monitor	DesSpeakers	Sys	Price
8Mb.	500Mb.	✓	✗	14"Trinitron	✓	7.5.1	£1349 (£1585)
8Mb.	500Mb.	✓	✗	15" MultiScan	✗	7.5.1	£1389 (£1632)
12Mb.	500Mb.	✓	✓	14"Trinitron	✓	7.5.1	£1549 (£1820)
12Mb.	500Mb.	✓	✓	15" MultiScan	✗	7.5.1	£1599 (£1879)

Finance and Leasing Facilities are available for both individuals and businesses (subject to status, please ask us for full written details)

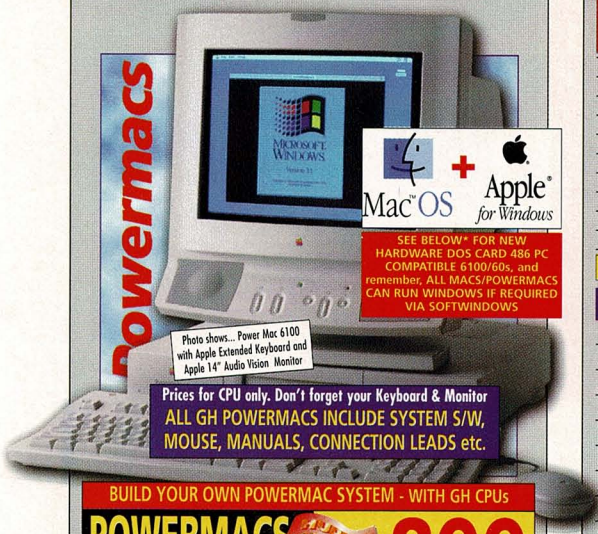
***FLEXIBLE BUDGET PLAN:** FOR PERSONAL INDIVIDUALS VISITING OUR SHOWROOM, PAY A MINIMUM OF 10% DEPOSIT NOW, THEN SPREAD THE COST OF YOUR SYSTEM WITH CONVENIENT MONTHLY PAYMENTS. Interest is simply charged monthly, meaning the agreement can be settled at any time by repaying the current balance with NO cancellation penalties. Interest Rate (variable) - Direct Debit APR 27.8%/2.07% per Month - Payment Book 32.4%/2.37% per Month. Written details/quotations available on request. *Subject to status. Please contact us prior to your visit for details of easy application requirements.*

GH... Leading the way

All listed prices are what YOU PAY, and there are NO HIDDEN EXTRAS. Prices are correct at time of going to press (Pack details may vary from time to time). Offers and Services are subject to availability and to being the latest advertised products, packs and prices. Please note goods are not supplied on a trial basis. E&OE.

NEW 9500s - THE FASTEST EVER...

POWERMACS



SEE BELOW* FOR NEW HARDWARE DOS CARD 486 PC COMPATIBLE 6100/60s, and remember, ALL MACS/POWERMACS CAN RUN WINDOWS IF REQUIRED VIA SOFTWINDOWS

Photo shows... Power Mac 6100 with Apple Extended Keyboard and Apple 14" Audio Vision Monitor

Prices for CPU only. Don't forget your Keyboard & Monitor

ALL GH POWERMACS INCLUDE SYSTEM S/W, MOUSE, MANUALS, CONNECTION LEADS etc.

BUILD YOUR OWN POWERMAC SYSTEM - WITH GH CPUs

POWERMACS FROM ONLY... £899 (£1056.33 inc. VAT)

GREAT GH DEALS ON ENTRY LEVEL POWERMAC 6100s

	RAM	HD	Display	CD	Keyboard	Price
6100/60	8Mb.	250Mb.	✗	✗	✗	£899 (£1056)
6100/60 CD	8Mb.	250Mb.	✗	✓	✗	£1029 (£1209)
6100/66	8Mb.	500Mb.	✗	✗	✗	£1129 (£1327)
6100/66 CD	8Mb.	500Mb.	✗	✓	✗	£1329 (£1562)
6100/66 + PC*	8Mb.*	500Mb.	✗	✗	✗	£1529 (£1797)
6100/66 CD + PC*	8Mb.*	500Mb.	✗	✓	✗	£1629 (£1914)

While Stocks Last

* 6100/66 PC Systems inc. 486 DX2 66MHz card & MS DOS 6.2 (Windows may be purchased separately)
* REMEMBER YOU ALSO GET AN EXTRA 8Mb. RAM ON THE DOS CARD TOO GIVING 16Mb. IN TOTAL!

GH BONANZA ON MID-RANGE POWERMAC 7100s

	RAM	HD	Display	CD	Keyboard	Price
7100/80	8Mb.	350Mb.	✗	✗	✗	£1695 (£1992)
7100/80 CD	8Mb.	700Mb.	✗	✓	✗	£1979 (£2325)
7100/80 CD-AV	8Mb.	700Mb.	✗	✓	✗	£1979 (£2325)

GH HIGH SPECIFICATION POWERMAC 8100 BARGAINS

	RAM	HD	Display	CD	Keyboard	Price
8100/100	8Mb.	700Mb.	✗	✗	✗	£2499 (£2936)
8100/100 CD	16Mb.	700Mb.	✗	✓	✗	£2879 (£3383)
8100/100 CD-AV	16Mb.	1Gb.	✗	✓	✗	£3149 (£3700)
8100/110 CD	16Mb.	2Gb.	✗	✓	✗	£3499 (£4111)

NEW POWERMAC 9500/120 CD 16/1000, Quad CD, and Accelerated Graphics Card

POWERMAC 9500 FROM JUST... £3799 (£4463.83 inc. VAT)

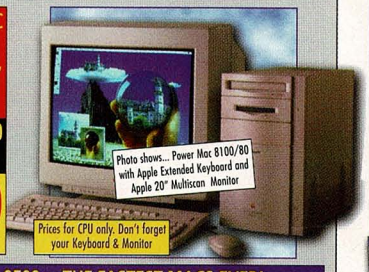


Photo shows... Power Mac 8100/80 with Apple Extended Keyboard and Apple 20" Multiscan Monitor

Prices for CPU only. Don't forget your Keyboard & Monitor

NEW GH 9500s - THE FASTEST MACS EVER!

The all new Apple Powermac 9500 Range sets new standards for speed, performance, expandability and processor upgradability. If you are a designer, engineer, multimedia expert or anyone with a need for POWER, these are the Macs to buy! Each model incorporates 6 Industry Standard PCI expansion slots for low cost plug in card possibilities. The 9500/120 CDGR & the 9500/132 CDGR come with an Accelerated 24-Bit PCI Graphics Card already fitted, whilst the 9500/132 CD is supplied without this card - allowing you to add a Graphics/Other Cards of YOUR choice.

	RAM	HD	Display	Apple Graphics Card*	CD	K/B	Price
9500/120 CDGR	16Mb.	1Gb.	✗	✓	✓	✗	£3799 (£4464)
9500/132 CD	16Mb.	2Gb.	✗	✗	✓	✗	£4399 (£5169)
9500/132 CDGR	16Mb.	2Gb.	✗	✓	✓	✗	£4599 (£5404)

* 2Mb. VRAM Included - Further 2Mb. VRAM for extra performance also available - Please ask us!

"Confirm you're getting the BEST DEAL - call those friendly people at the UK's FAVOURITE RESELLER!"

"Got a technical problem?" "Need an Upgrade?" "Want a new peripheral fitting?" LOOK NO FURTHER... Our Apple Approved Engineers will do the job.

POWERBOOKS

NEW... PCMCIA/GSM Mobile Phone Interface for POWERBOOK 500 Series - SOME PACKS EVEN INCLUDE MOBILE PHONES!!! - CALL GH NOW FOR DETAILS!

150 - 4/250 + Claris Works 2.1	£749	(£880)
520 - 4/240 + Mobility Pack	£1199	(£1409)
520c - 4/240 + Mobility Pack	£1699	(£1996)
520c - 12/320 + Mobility Pack & Modem	£2249	(£2643)
520c - 12/320 + Modem + GSM Bundle	£3195	(£3754)
540c - 4/320 + Mobility Pack	£2699	(£3171)
540c - 12/500 + Mobility Pack & Modem	£3049	(£3583)
540c - 12/500 + Mobility Pack & GSM	£4049	(£4758)
280c - 4/500 + Mobility Pack	£2099	(£2466)
280c - 12/500 + Mobility Pack & Modem	£2449	(£2878)

FREE!!! APPLE VOUCHER with all 540c & 280c P/Bs giving FREE upgrade to Powermac Spec. when available (around Sept '95)!!!

POWERBOOK ACCESSORIES & SOFTWARE

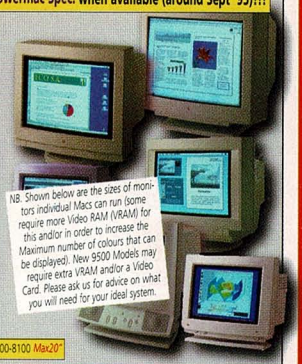
150/Duo 230 - 4Mb. RAM Upgrade	£166	(£195)
140/45,150,160/65,170,180/c - Battery	£43	(£50)
500 - 4Mb. RAM Upgrade	£171	(£200)
500 - Express Modem	£325	(£381)
500 - PCMCIA Expansion	£113	(£132)
500 - Type III Intelligent Battery	£90	(£106)
Duo - Dock Plus inc. 230HD & VRAM	£622	(£730)
Duo - External 1.44 Mb. Floppy Drive	£94	(£110)
Duo - Floppy Drive Adaptor	£81	(£95)
Duo - Deluxe Leather Carry Bag	£120	(£140)
Duo - Type III Rechargeable Battery	£77	(£90)
Powerbook (non Duo) - Security Kit	£26	(£30)
All Powerbooks - Norton Essentials	£81	(£95)
GSM Mobile FAX Pack for 500 Series Powerbooks	£1225	(£1439)

GH MONITOR MADNESS...

Monitor Model		Price
Apple 14" Performa Plus (.28)		£209 (£246)
Apple 14" Trinitron (.26)	LOWER PRICE	£239 (£281)
Apple 14" AudioVision (.26)		£345 (£406)
Apple 15" MultiScan (.28)		£299 (£352)
Apple 17" Trinitron MultiScan (.25)		£659 (£775)
Apple 20" Trinitron Multiscan (.26)		£1399 (£1644)
Sony 15" SFI Trinitron MultiScan (.26)		£345 (£406)
Sony 17" Trinitron MultiScan (.26)		£659 (£775)
Raster Ops 20" Trinitron Tube		£1199 (£1409)
Raster Ops 21" Hitachi Tube		£895 (£1052)

LC III/Performa 450-460-630/Quadra 630/Powermac 6100-5200-6200 Max 17" Performa 475/Powermac 7100-8100 Max20"

NB. Shown below are the sizes of monitors individual Macs can run (some require more Video RAM (VRAM) for this and/or in order to increase the Maximum number of colours that can be displayed). New 9500 Models may require extra VRAM and/or a Video Card. Please ask us for advice on what you will need for your ideal system.



MACINTOSH KEYBOARDS

Apple Design Keyboard	£79	(£93)
Apple Extended Keyboard	£139	(£164)
Apple Adjustable Keyboard	£165	(£194)

BUY FROM GH WITH ABSOLUTE CONFIDENCE!

"As a family business established in 1955, we've supplied computers for the past 12 years. With over £32 million worth of units sold, and more than 215,000 happy customers, our trading record is second to none! Why don't you try us for your next Apple and find out why we are the UK's Favourite Apple Reseller?"

Giles Harwood - Managing Director

FAX FOR A... QUICKQUOTE 01-773 831040

ORDER HOTLINE... 01-773-836781

"...at GH, we'll look after you..."

SERVICE, SUPPORT and WARRANTIES: GH is one of Apple UK's selected Authorised Service Providers (not all Resellers have this accreditation). Our standard One Year GH Gold Warranty gives you a comprehensive backup. GH also offer a range of options for business and professional users which may be essential for systems in high dependency/constant use

BY PHONE: We'll help with any queries and when you're ready to order we accept Visa, Mastercard, Access, Switch, Connect, Delta and Lombard Creditcharge (most 'store cards' are Lombard Creditcharge and we happily accept them).

BY POST or FAX: When ordering include your name, address and preferably a contact phone number with your order requirements. If charging a credit/debit card include its number and expiry date (and issue number with Switch cards). Make Cheques (please allow 7 days clearance prior to despatch), Bankers/Building Society Drafts or Postal Orders payable to Gordon Harwood Computers

PRICES: Please remember to confirm prices in case you are looking at an 'old' magazine. Prices can change (up or down) before the magazine's cover month has passed. Please confirm before sending orders by post.
For the convenience of personal and business customers, we list prices both with and without VAT (to the nearest full £ - shown in brackets)

EXPORT: Most items are available at TAX FREE PRICES to non EC residents & overseas UK Armed Forces Personnel (with CO's document). Please call us for confirmation of prices and carriage charges.

DELIVERY: We ship promptly & offer delivery of all orders throughout Mainland UK & most products overseas. If your order is urgent we have priority despatch options with express delivery available.

MACINTOSH CHIP UPGRADES

RAM - 4Mb. SIMMS	£15	(£136)
RAM - 8Mb. SIMMS	£219	(£258)
RAM -16Mb. SIMMS	£359	(£422)
Powermac 256K Cache	£159	(£187)
Powermac 512K Cache	£251	(£295)
630 - FULL 68040 with FPU Chip Upgrade	£309	(£363)

MACINTOSH EXPANSIONS

630/5200/6200 Comms Card	£199	(£234)
475 & 630 Upgrade to Powermac Cards	£429	(£505)
Powermac 6100 PC 486 DX2 66MHz Microsoft DOS Card	£399	(£469)
Collect/fit & delivery add	£30	(£36)

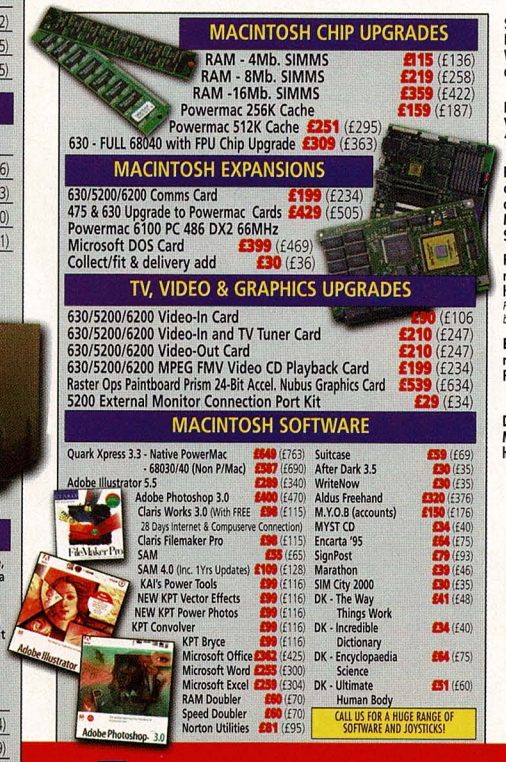
TV, VIDEO & GRAPHICS UPGRADES

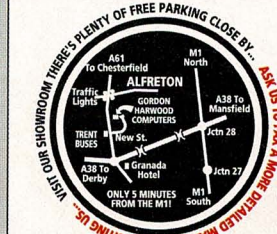
630/5200/6200 Video-In Card	£90	(£106)
630/5200/6200 Video-In and TV Tuner Card	£210	(£247)
630/5200/6200 Video-Out Card	£210	(£247)
630/5200/6200 MPEG FMV Video CD Playback Card	£199	(£234)
Raster Ops Paintboard Prism 24-Bit Accel. Nubus Graphics Card	£539	(£634)
5200 External Monitor Connection Port Kit	£29	(£34)

MACINTOSH SOFTWARE

Quark Xpress 3.3 - Native PowerMac	£649	(£763)	Suitcase	£59	(£69)
- 68030/40 (Non P/Mac)	£587	(£690)	After Dark 3.5	£30	(£35)
Adobe Illustrator 5.5	£288	(£340)	WriteNow	£30	(£35)
Adobe Photoshop 3.0	£400	(£470)	Aldus Freehand	£320	(£376)
Claris Works 3.0 (With FREE 28 Days Internet & Compuserve Connection)	£98	(£115)	M.Y.O.B (accounts)	£150	(£176)
Claris Filemaker Pro	£98	(£115)	MYST CD	£34	(£40)
SAM	£55	(£65)	Encarta '95	£64	(£75)
SAM 4.0 (Inc. 1Yrs Updates)	£109	(£128)	SignPost	£79	(£93)
KAI's Power Tools	£99	(£116)	Marathon	£39	(£46)
NEW KPT Vector Effects	£99	(£116)	SIM City 2000	£30	(£35)
NEW KPT Power Photos	£99	(£116)	DK - The Way Things Work	£41	(£48)
KPT Convolver	£99	(£116)	DK - Incredible Dictionary	£34	(£40)
KPT Bryce	£99	(£116)	DK - Encyclopaedia Science	£64	(£75)
Microsoft Office	£362	(£425)	DK - Ultimate Human Body	£51	(£60)
Microsoft Word	£255	(£300)			
Microsoft Excel	£259	(£304)			
RAM Doubler	£60	(£70)			
Speed Doubler	£60	(£70)			
Norton Utilities	£81	(£95)			

CALL US FOR A HUGE RANGE OF SOFTWARE AND JOYSTICKS!





WE'RE OPEN... Monday to Saturday 9am until 5pm

"Why not visit our Apple Showroom where most models are on display".

We supply all Government/Educational Departments and Major PLC's and respond rapidly to your quotation requests

gordon harwood computers

the UK's favourite Apple reseller!

GORDON HARWOOD COMPUTERS LIMITED
(Department MAF/S12)
NEW STREET ALFRETON
DERBYSHIRE DE55 7BP
Telephone: 01-773-836781
Facsimile: 01-773-831040

for value and service!

Apple Authorised Reseller & Service Provider

RED HOT SIZZLING SUMMER SAVINGS... FROM SUPER GH!

UMAX PRICE CRASH

Model	Resolution (dpi) Optical	Max	Transp. Adaptor	Photoshop	Price
VISTA T630	600x300	4800	✗	LE	£399 (£469)
VISTA T630	600x300	4800	✓	FULL	£849 (£998)
VISTA S6	600x300	4800	✗	LE	£499 (£586)
VISTA S6	600x300	4800	✗	FULL	£619 (£727)
VISTA S6	600x300	4800	✓	FULL	£935 (£1099)
VISTA S8	800x400	6400	✗	LE	£575 (£676)
VISTA S8	800x400	6400	✗	FULL	£669 (£786)
VISTA S8	800x400	6400	✓	FULL	£999 (£1174)
UC 1260	1200x600	9600*	✗	FULL	£825 (£969)
UC 1260	1200x600	9600*	✓	FULL	£1149 (£1350)
POWERLOOK	1200x600	9600*	✗	FULL	£1699 (£1996)
POWERLOOK	1200x600	9600*	✓	FULL	£1999 (£2349)

*Available soon with new interpolation software

VISTA S8
GH SCOOP PRICE
SCANNER BARGAIN...
£575 (£675.63 inc. VAT)

GH OMNIPAGE SOFTWARE OPTION...
Buy Omnipage with ANY Umax Scanner from GH and pay JUST... £45 (£53)

GENUINE UK UNITS...
ALL GH UMAX PRODUCTS COME WITH 1 YEAR ON-SITE WARRANTY IF SOURCED IN THE UK. GREY IMPORTS DO NOT CARRY THIS OFFICIAL WARRANTY.

Transparency Adaptors (please quote Umax scanner model when ordering)	£422 (£499)
50 Sheet Document Feeder for Vistas	£379 (£445)

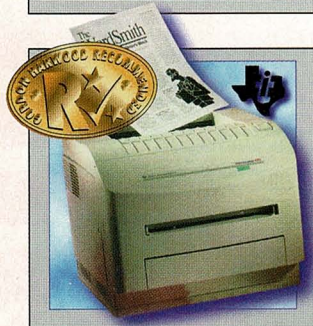
GREAT QUALITY INKJET PRINTING ON A3 PAPER
EPSON 720dpi STYLUS PRO XL £1445 (£1697.88 inc. VAT)

GH have secured stocks of the exciting NEW EPSON STYLUS PRO XL inkjet printer which boasts an incredible 720 x 720dpi maximum resolution. Not only that, but output can be A3 PLUS BLEED! This is the ultimate inkjet Proofing Device - Ask GH for more details.

- A3 PLUS BLEED
- 720 X 720dpi QUALITY HIGH RESOLUTION
- EASY CHANGE TRICOLOUR & BLACK CARTRIDGES
- BUILT IN SHEET FEEDER
- INCLUDES SERIAL CABLE TO YOUR MAC - FREE

EPSON STYLUS - A4
GH can also offer you quality inkjet printing at 720dpi with the EPSON STYLUS working with A4 sizes. The magazine reviews of this printer were fantastic - you'll know why when you see the output!

EPSON STYLUS COLOUR INKJET PRINTER £375 (£440)



TEXAS INSTRUMENTS 600dpi LASER BARGAIN!
600dpi LASER PRINT FROM... £599 (£703.83 inc. VAT)
TI LASER TONERS AVAILABLE NOW!

If you've been waiting for the expense of 600dpi Laser Printing to COME DOWN, but not at the cost of quality - your wait is over! The new TEXAS INSTRUMENTS MICROLASER 600 & PRO 600 could be the answer to your dreams with their feature packed specifications...

- A4 Paper Size • 250 Sheet Paper Tray • Fast 5ppm (600)/8ppm (600 Pro)
- PCL 5 Emulation • RISC Processor • Autosensing Connections for MAC or IBM Compatibles • True 600 x 600 dpi Resolution • Adobe Postscript Level 2
- Options to add a Universal Sheet Feeder for a variety of paper sizes (eg. Laser Labels, Laser Envelopes, Transparencies etc.)
- 2 or 4Mb. RAM (max 10Mb.) - 600 • 3Mb RAM (max 22Mb.) - 600 Pro

Both the 600 (2Mb.) & 600 Pro incorporate a RAM BOOSTER allowing many 4Mb files to be output even with 2Mb. RAM. Please note that 600dpi print files are FOUR TIMES the size of equivalent 300dpi print files FOR ALL PRINTERS - GH therefore still recommend that whilst 2Mb. is adequate for WP etc., 4Mb. or more will extend the capabilities for large graphic output files etc. at 600dpi.*

TI Microlaser 600 Model...	Price
Microlaser 600 with 2Mb. RAM + RAM BOOSTER*	£599 (£704)
Microlaser 600 with 4Mb. RAM	£725 (£852)
2Mb. RAM Upgrade	£145 (£171)
MICROLASER 600 PRO Including 3Mb. RAM + RAM BOOSTER*	£850 (£999)

THE IDEAL COMPANION IF YOU'RE ON THE MOVE
GH HAND HELDS NEWTON HAND HELDS FROM... £340 (£399.50 inc. VAT)

NEWTON 110 -1Mb.	£340 (£400)
NEWTON 120 - 2Mb.	£399 (£469)
1Mb. Storage Card	£60 (£70)
2Mb. Storage Card	£111 (£130)
4Mb. Storage Card	£199 (£234)
Connection Kit - Mac	£51 (£60)
Connection Kit - Windows	£51 (£60)
Leather Carrycase - 100/Original Message Pad	£34 (£40)
Leather Carrycase - 110/120	£42 (£50)
Battery Pack Wall Recharger including Battery - 100	£34 (£40)
Mains Charge Station inc. Batt. -110/120	£47 (£56)
Nicad Battery - For Newton 110	£14 (£17)
Nicad Battery - For Newton 100/Original Message Pad	£13 (£16)
Tapworks	£51 (£60)
Graffiti	£39 (£46)

LOTS MORE NEWTON SOFTWARE AVAILABLE - PHONE GH!

New Product

IF YOU TRAVEL AND WANT TO STAY IN TOUCH FROM YOUR CAR OR WHEREVER YOU CAN USE A MOBILE PHONE...

THEN APPLE HAVE THE ANSWER!

NEWTON120 - 2Mb. with NOKIA 2110 Digital Mobile Phone, GSM Pack and DataCard £1244 (£1462)

GSM PACK - NOKIA 2110 Mobile Phone, GSM Pack and DataCard for use with Newtons £995 (£1169)

Leaf a scitex company scitex

New Product
Captures an image at 2700 x 3400 (26Mb.) resolution in just 3 minutes (33MHz Quadra 950. Great quality output evn at A4 size.
INCLUDES 35mm SLIDE ADAPTOR!

- Ideal for Graphic Artists, Designers, In-House publishers, Service Bureaux, Newspaper/Magazine art departments etc. that need to cut out the waiting time for their Photographic requirements... Now YOU control the imaging schedule - in a quick & easy way.
- Cut scan times. Get transparencies/photos directly into your Mac.

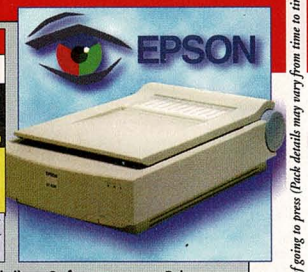
DIGITAL ELECTRONIC PHOTO SCANNER/CAMERA
SCITEX LEAF 2700 x 3400 LUMINA! £2999 (£3523.83 inc. VAT)

The NEW... LEAF LUMINA from SCITEX is a revolutionary 2700 X 3400 resolution full colour imaging product designed to bring production quality photographic images onto the desktop. You can use the Lumina with standard photographic accessories such as a tripod, copy stand, studio lights, lens filters/gels etc. to capture not just flat artwork, but also 3 DIMENSIONAL OBJECTS/SCENES too! Lumina is supplied with its own 50mm lens and also accepts 'off the shelf' standard Nikon fitting 35mm SLR Camera lenses for real versatility. Operation is really simple, Arrange your 'still life' items and light them etc. and Lumina will input via your Macs SCSI interface. The picture will preview/update on your Mac monitor as the image progresses! IT'S AS EASY AS THAT!

- Includes Lumina Software consisting of 2 Photoshop Plug-Ins
- Full focusing facilities for total creative control • Full MAC screen previews at 72dpi on a 19" monitor in around 20 secs.
- Use to Scan Artwork & Transparencies (35mm to 6 x 7cm) too.

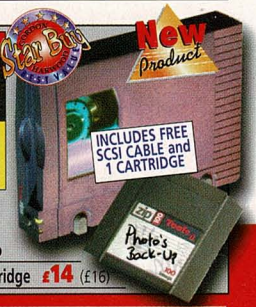
THE COST EFFECTIVE WAY TO GET QUALITY IMAGES INTO MACS!

SCANNER SAVERS
GH MACPAC EXTRA MAC SCANNERS STARTING AT... £449 (£527.58 inc. VAT)
Epson Scanners include CUSP, 1st year on-site REPLACEMENT from distributor 'Customer Satisfaction Programme'



Model	Resolution (dpi) Optical	Max	Software	Price
GT 6500	300	1200	Photoshop LE & Omnipage Direct	£449 (£528)
GT 6500	300	1200	Full Photoshop	£629 (£739)
GT 8500	400	1600	Photoshop LE & Omnipage Direct	£569 (£669)
GT8500	400	1600	Full Photoshop	£779 (£915)
GT9000	600	2400	Photoshop LE & Omnipage Direct	£689 (£810)
GT9000	600	2400	Full Photoshop	£879 (£1033)
Transparency Adaptor for 6500/8000/9000				£418 (£491)

IOMEGA ZIP DRIVE
100Mb. PER CARTRIDGE
GREAT GH VALUE... £136 (£159.80 inc. VAT)



- RATED '5 MICE' IN MAC USER
- COST EFFECTIVE - 14p PER Mb!
- COMPACT AND PORTABLE
- EXCELLENT SOFTWARE INCLUDED

100Mb. Blank ZIP Drive Cartridge £14 (£16)

All listed prices are what YOU PAY, and there are NO HIDDEN EXTRAS. Prices are correct at time of going to press (Pack details may vary from time to time). Offers and Services are subject to availability and to being the latest advertised products, packs and prices. Please note goods are not supplied on a trial basis. E&OE.

Finance and Leasing Facilities are available for both individuals and businesses (subject to status, please ask us for full written details)

***FLEXIBLE BUDGET PLAN:** FOR PERSONAL INDIVIDUALS VISITING OUR SHOWROOM, PAY A MINIMUM OF 10% DEPOSIT NOW, THEN SPREAD THE COST OF YOUR SYSTEM WITH CONVENIENT MONTHLY PAYMENTS. Interest is simply charged monthly, meaning the agreement can be settled at any time by repaying the current balance with NO cancellation penalties. Interest Rate (variable) - Direct Debit APR 27.8%/2.07% per Month - Payment Book 32.4%/2.37% per Month. Written details/quotations available on request. *Subject to status. Please contact us prior to your visit for details of easy application requirements.*

GH... Leading the way

APPLE 12/600PS COLOUR 600dpi LASER

£4999 (£5873.83 inc. VAT)

- A4 Paper Size • MONO or COLOUR output • True 600dpi Resolution
- Fast 12ppm Mono or 3ppm Colour • RISC Processor • ColorSync Ready
- Adobe Postscript Level 2 • 39 Postscript Fonts + Screen Fonts on printer
- 12Mb. RAM (expandable to 40Mb.) • LocalTalk, Ethernet & Parallel Ports
- SCSI Port (for External HD, font storage) • Optional Internal 240Mb. HD

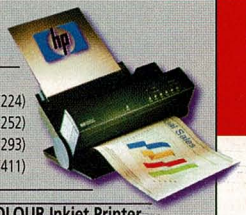
APPLE LASERWRITER PRINTERS		
Personal LaserWriter 300 - 300dpi, 4ppm Mono	£429	(£505)
LaserWriter 320 - 300dpi, 5ppm Mono, P/Script Level 2	£649	(£763)
LaserWriter Select 360 - 600dpi, 10ppm Mono, P/S Level 2	£1049	(£1233)
LaserWriter 16/600 - 600dpi, 16ppm Mono, Postscript Level 2	£1599	(£1879)

APPLE StyleWriter 1200 Mono
360dpi x 720dpi Inkjet 3PPM Printer for budget laser-like quality output. Quickdraw GX compatible.
£199 (£234)

APPLE StyleWriter 2400B Colour
Excellent 360dpi colour output or 720 x 360 dpi mono. Ideal for proofs - the LATEST Colour S/Writer
£349 (£410)

APPLE StyleWriter 2200 Colour
Colour 360dpi or Mono 720 x 360 dpi. Compact and Portable - Ideal if you're on the move.
£289 (£340)

StyleWriter 2200 Rechargeable Battery **£Call**



HP DESKWRITER Inkjet Printers...

HP320 - Mono 600 x 300dpi	£190	(£224)
HP320 - Inc. Sheet Feeder	£214	(£252)
HP540 - Mono 600 x 300dpi	£249	(£293)
HP660 - Colour 600 x 300dpi With Resolution Enhancement!	£349	(£411)

HP DESKWRITER 560 COLOUR Inkjet Printer
Colour - upto 600 x 300dpi **£339** (£398)

PRINTER CONSUMABLES

StyleWriter...		
I/II/Portable - Black Cartridge	£16	(£19)
2400 - Black Cartridge	£22	(£26)
Colour Cartridge	£24	(£28)
Black Ink Tank	£6	(£7)
Colour StyleWriter Pro...		
Black Hi-Capacity Cart.	£8.50	(£10)
C, M, Y or K Cartridge	£7.50	(£9)
CMYK - 4 Colour Set Cart.	£30.50	(£36)
Epson Stylus...		
Black Cartridge	£17	(£20)
Colour Cartridge	£30	(£35)
360dpi Paper, 200 Sheet	£19	(£22)
720dpi Paper, 200 Sheet	£22	(£26)
HP DeskWriter...		
Black Double Cap. Cart.	£21	(£24)
Tri Colour Cartridge	£24	(£28)
Toners...		
For Apple 300/320	£51	(£60)
For Apple 360	£81	(£95)
For Apple 16/600	£90	(£106)
Apple Inkjet Printer Paper...		
A4 Coated - 200 Sheets	£24	(£28)
A4 Backprint - 20 Sheets	£25.50	(£30)
A4 Glossy - 50 Sheets	£28	(£33)

GH ACCESSORIES ESPECIALLY FOR YOUR APPLE

10 - TDK 3.5" HD Blank Disks	£7.66 (£9)
50 - TDK 3.5" HD Blank Disks	£34 (£40)
3.5" Disk Head Cleaning Kit	£3.40 (£4)
GH Quality Mouse Mat	£4.26 (£5)
Essential Mouse Mechanic Maintenance Tool	£5 (£6)
Genuine Apple Desktop II Ergonomic Mouse	£38 (£45)
Syquest 44Mb. Cartridge	£34 (£40)
Syquest 88Mb. Cartridge	£43 (£51)
Syquest 200Mb. Cartridge	£68 (£80)

200 SYQUEST
200Mb. Standard 5.25" Syquest Drive
Just... £383 (£450)

PINNACLE RCD 1000
CD ROM WRITER Only...
£1299 (£1526)

88 SYQUEST
88Mb. Standard 5.25" Syquest Drive
Only... £263 (£309)

PHONE AND ASK FOR DETAILS OF BOTH GH's FLEXIBLE BUDGET PLAN* (for personal callers to our showroom) AND APPLE COMMERCIAL CREDIT/LEASE SCHEMES FOR BUSINESS USERS. Subject to status. Written details are available on request.

"Confirm you're getting the BEST DEAL - call those friendly people at the UK's FAVOURITE RESELLER!"

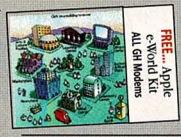
"Got a technical problem?" "Need an Upgrade?" "Want a new peripheral fitting?" LOOK NO FURTHER... Our Apple Approved Engineers will do the job.

GET ON THE INTERNET...
From... **£145** (£170.38 inc. VAT)

BABT Approved

US Robotics 14400bps Sportster Mac 'n' Fax **£145** (£171)

US Robotics 28800bps Sportster 288 V34 **£225** (£264)



Global Village 28800bps TelePort Platinum **£249** (£293)

Phone us for details of other Global Village Modems

BABT Approved

Supra 288 Fax Modem
Alpha numeric display, fast 28800 bps transfer rates, cables, full manual. NON BABT.
£189 (£222)

NEW... APPLE QUICKTAKE 150 Camera for Mac or PC
New higher spec. version of the popular QuickTake, the 150 now boasts extra memory for more stored images and a CLOSE UP LENS attachment.
QuickTake 150 Mac or PC (please state which you require on ordering) **£399** (£469)

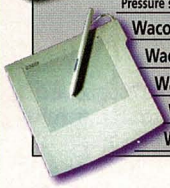
APPLE Geoport Adaptor
Geoport provides a fully featured Fax Modem with send/receive capabilities operating at up to 14400 bps on PowerMacs or AV Macintosh
£94 (£111)

Connector Kit For 2nd Mac or PC) **£48** (£57)

INTERNET Membership Kit
(Purchased with any US Robotics Modem)
£49 (£58)

STANDARD APPLE QuickTake Camera - Mac or PC
Ideal for Multimedia Images/Estate Agents etc. (please state Mac/PC)
QuicTake Camera **£229** (£269) Carrycase **£40** (£47)

WACOM GRAPHICS TABLET
Pressure sensitive art pad - great for your designs



Wacom Artpad	£140	(£165)
Wacom Artpad & Dabbler	£175	(£206)
Wacom A5 Tablet	£295	(£347)
Wacom A4 Tablet	£CALL	
Wacom A3 Tablet	£595	(£700)

APPLE DESIGN SPEAKERS II
Simply plug into your Mac for some great stereo sounds. Attractively styled to match your Macintosh design.

Design Speakers II **£51** (£60)

BUY FROM GH WITH ABSOLUTE CONFIDENCE!
"As a family business established in 1955, we've supplied computers for the past 12 years. With over £32 million worth of units sold, and more than 215,000 happy customers, our trading record is second to none! Why don't you try us for your next Apple and find out why we are the UK's Favourite Apple Reseller?"
Giles Harwood - Managing Director

HARWOODS GOLD SERVICE PEACE OF MIND

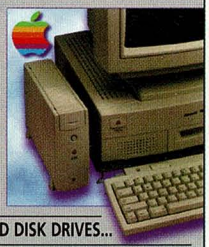
FAX FOR A... QUICKQUOTE 01-773 831040

ORDER HOTLINE... **01-773-836781**

APPLE CD 300e Plus
Caddyless CD Drive, Double Speed with Cable and Terminator **£189** (£222)

NEC/APPLE Double Speed CD
Caddyless CD Drive, Double Speed with Cable and Terminator, Accelerated Autocache software for even FASTER performance **£129** (£152)

STRICTLY LIMITED QUANTITIES AT THIS SUPER LOW PRICE!



QUALITY QUANTUM SCSI HARD DISK DRIVES...

INTERNAL SCSI HD Spec	Price	EXTERNAL SCSI HD Spec	Price
365Mb.	£149 (£176)	365Mb.	£229 (£270)
540Mb.	£175 (£206)	540Mb.	£259 (£305)
730Mb.	£209 (£246)	730Mb.	£289 (£340)
1000Mb.	£419 (£493)	1000Mb.	£499 (£587)
2100Mb.	£779 (£916)	2100Mb.	£859 (£1010)

APPLE HARD DISK DRIVES ARE ALSO AVAILABLE, STYLED TO MATCH YOUR MACINTOSH, IN 325Mb., 500Mb. and 1000Mb. Capacities - Please call GH.

"...at GH, we'll look after you..."

SERVICE, SUPPORT and WARRANTIES: GH is one of Apple UK's selected Authorised Service Providers (not all Resellers have this accreditation). Our standard One Year GH Gold Warranty gives you a comprehensive backup. GH also offer a range of options for business and professional users which may be essential for systems in high dependency/constant use

BY PHONE: We'll help with any queries and when you're ready to order we accept Visa, Mastercard, Access, Switch, Connect, Delta and Lombard Creditcharge (most 'store cards' are Lombard Creditcharge and we happily accept them).

BY POST or FAX: When ordering include your name, address and preferably a contact phone number with your order requirements. If charging a credit/debit card include its number and expiry date (and issue number with Switch cards). Make Cheques (please allow 7 days clearance prior to despatch), Bankers/Building Society Drafts or Postal Orders payable to Gordon Harwood Computers

PRICES: Please remember to confirm prices in case you are looking at an 'old' magazine. Prices can change (up or down) before the magazine's cover month has passed. Please confirm before sending orders by post.
For the convenience of personal and business customers, we list prices both with and without VAT (to the nearest full £ - shown in brackets)

EXPORT: Most items are available at TAX FREE PRICES to non EC residents & overseas UK Armed Forces Personnel (with CO's document). Please call us for confirmation of prices and carriage charges.

DELIVERY: We ship promptly & offer delivery of all orders throughout Mainland UK & most products overseas. If your order is urgent we have priority despatch options with express delivery available.

WE'RE OPEN... Monday to Saturday 9am until 5pm

"Why not visit our Apple Showroom where most models are on display"...

We supply all Government/Educational Departments and Major PLC's and respond rapidly to your quotation requests

gordon harwood computers
the UK's favourite Apple reseller!

GORDON HARWOOD COMPUTERS LIMITED
(Department mf/S12)
NEW STREET ALFRETON
DERBYSHIRE DE55 7BP
Telephone: 01-773-836781
Facsimile: 01-773-831040

for value and service!

Let the Macintosh world know what you think, and win a binder too! Write to Alex Summersby, AppleTalk, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.

WINNERS ALL!
Every letter and postcard published on these pages wins its sender an exclusive MACFORMAT binder, the ideal lifestyle accessory for binding MACFORMAT. If you're a fashion victim and want one *now*, you can buy one *fast* – see page 124.

MACFORMAT might have lost a couple of millimetres off its width this issue (gives a new meaning to the term 'paper cut', doesn't it?), but we'll do our best to cram just as many letters on these pages! So I'll keep this short: you write a good letter, we publish it and send you a MACFORMAT binder. Can't say shorter than that, eh?

Closed University?

I am seriously thinking of doing an Open University qualification in Information Technology, but was dismayed to find out that the hardware specifications are for a 486 4Mb RAM IBM-compatible machine, with Windows 3.1 and DOS 6.2. I have a new Apple Performa 630 and am not parting with it. Insignia Solutions inform me that their *Soft PC* program is based on the 286 and admit, to their credit, that they do not know whether OU provided software will work. The new DOS on Mac cards will not work either, unless newer ones are being developed. Has anyone out there come across, and solved, this problem before?

FP Cain
via CIX

Your time is up...

Perhaps I will be your next token Australian! I have just obtained the March edition of MACFORMAT and I must agree with your Australian correspondent about 'time-limited' software. You seem to have completely ignored his point. When the magazine becomes available in Australia your time-limited software has already expired, which is frustrating to say the least.

I have really enjoyed your magazine apart from this problem and the odd few glitches in the software supplied. I have just tried *Clipfolio* and would like to report that it understates its inability to work with *Microsoft Word 6.0*. It not only doesn't work but *Word* falls over, and in the process the hierarchical functions in the Apple menu disappeared as well. Good one.

Clive Maynard
Dept. of Computer Engineering
Curtin University of Technology,
Perth, Western Australia
via CIX

Most 'time-limited' demos start the clock ticking from the date you install the software and first use it. They often do this by recording those details in their Preferences files, so you can sometimes gain a new lease of life for the demos by trashing their prefs – the only complication is that these files are commonly invisible. If a demo does actually come with an expiry date coded into it, you can usually get around that by simply resetting your Mac's System clock, using either the ***General Controls*** *or the* ***Date and Time*** *Control Panel. Difficult, I know, for anyone in Australia to even contemplate being behind the times – it's at least eight hours ahead of Greenwich Mean Time...*

After Wolfenstein...

I am writing to you to express my vehement disapproval of your review

Out of the Sun: a byword for 'the unexpected'. A bit like the complaint that it is 'anti-Japanese'...

of *Out of the Sun* in MACFORMAT 22. I feel, not unreasonably I am sure, that such anti-Japanese propaganda should not have found its way into a reputable, normally forward-thinking forum of the people.

You seem to have bowed down to racist elements in the Macintosh community by publishing a review of an inherently anti-Japanese game. It makes light of the heart-wrenching suffering experienced by the Japanese in World War II. They have paid their debt to mankind and, therefore, should not be constantly reminded of their mistakes by games programmers or reviewers. Give them a break!

Michael Bradley & William Painter
via CIX

Ooh, a bit of controversy. Topical too, what with the fuss about VJ Day. And here was me thinking things might quieten down after Wolfenstein *had drifted over the horizon. Any MACFORMAT readers have any strong views on this one? I'll say nothing. For the moment.*

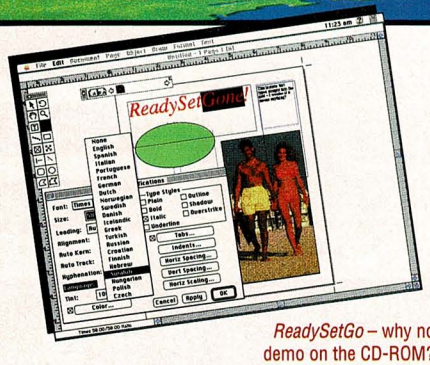
Royal Commission, take note

Each month MACFORMAT, and other computer magazines, include a CD-ROM on their cover. At a recent Mac Show (at Olympia) you were even giving away thousands of CDs, containing example programs, for free.

The typical price of a CD, with music on it, is about £15 in the shops.

How come computer magazines can make them available for so much

THE ONES THAT ESCAPED THE GREAT DTP ROUND-UP...



ReadySetGo – why no demo on the CD-ROM?

I would first like to compliment you on the great idea of using your CD-ROM as a means to spread demos of commercial programs – at last I can get to try out features for myself. I'd also like to compliment you on your comparative reviews of DTP programs in MACFORMAT 24. However, it was a disappointment to me that you didn't put a demo of *ReadySetGo* on the CD. I learned DTP on *RSG* some six or seven years ago. Here in Finland, nobody is importing the program, so it would have been nice to see how it looks today.

The other thing that I thought was lacking was the 'automation' part of the article. No mention whatsoever of AppleScript! At least *QuarkXPress* is fully AppleScriptable. I think that AppleScript is going to be quite a big thing in the Macintosh world, and it would be useful for you to write as much as possible on the matter. I have trained myself in using AppleScript together with *FileMaker Pro* and I'm starting to explore *Quark's* possibilities.

I'd like to see some larger articles on AppleScript in a future issue of MACFORMAT.

Stefan Schütt
Finland, via FutureNet

It was a disappointment to us too that out of all the DTP programs currently available for the Mac, we couldn't get a demo of only one, ReadySetGo – *Letraset Software simply wasn't able to supply one. As for 'automation', the article was really concerned only with programs'* built-in *systems and shortcuts, not methods that require an additional, external program – after all, you could automate virtually any application with a macro program like* QuicKeys, *and we didn't mention that either. Not a bad idea for a future feature though. But we do have an introduction to AppleScript planned for MACFORMAT soon. Feedback on our DTP head-to-head is very welcome.*

cheaper? Is the technology required to make CDs and then put music on them different and more expensive than that to put computer programs on? Or are we really being conned when we buy a music CD?
RK Bobal
via FutureNet

The price of Mac software on CD-ROM is commonly £40 or so, and you're asking us?

Rude-ware?

I agree with Stephen Bamber (MACFORMAT 21) about shareware authors being their own worst enemies. When I sent the indicated amount of money to register *ZTerm* properly and get the latest version of the program, I got nothing. Then I sent a letter asking if the promised program had already been mailed. I received a flat 'no'. And that was it. I haven't heard from them since, despite another message asking what is the matter. I wonder what these guys think of us when we're trying to make an honest deal with them.
Dr Harry Merl
via CIX

Sorry, let me get this straight: they actually took the trouble to reply only to tell you they weren't sending you anything? How bizarre. Anybody else had any unsatisfactory dealings with shareware authors?

Unlucky at cards...

Why do Mac II owners always lose at cards (or board games)? As a patient and long-suffering IIvx owner, I was (at first) delighted to read in MACFORMAT 25 that DayStar are to bring out an upgrade card to enable Mac II owners to (at last!) upgrade to PowerPC without pursuing the expensive option of changing the mother board. It was less than cheering to read, in the next sentence, that the likely cost was to be well in excess of the street price of a brand new PowerPC CPU!

As both options are more expensive than a brand new machine, what is the point of upgrading an existing CPU at this kind of price?
David Marshall
UEA, Norwich
via CIX

The bill's in the mail

I read with interest your reply to Iain Watt's letter in MACFORMAT 22 about Internet access, particularly the part about ISDN lines to service providers being the way to avoid phone bills. Sorry, guys, but ISDN is a fast dial service and even though ISDN2 from BT gives you two 64K digital lines, they are still charged as normal phone calls and you will definitely get them on your bill. Please let people know !
Andrew Horne
Cookham, Berks
via CIX

Oops. When we said a 'dedicated' ISDN line we meant a leased *line... I hope.*

A matter of timing

I bought a Performa 630 8/350/CD/TV just two weeks before the release of the Performa 5200CD, 6200CD and 630CD DOS-compatible Macintoshes. I'd like to know if Apple are going to give me free, or at least at discount cost, an upgrade of my double-speed CD drive to the new quad-speed drive. Similarly with the DOS card and other new features. I think this is the least Apple should do.
Chris Stephens
Leeds

Which just goes to show the truth of the old saying: the best time to buy that Mac is next month, when the prices drop. Or was it last week, when it was still available...? ***MF***

A QUESTION OF TRADITION?

Can you believe it? I recently purchased a PowerMac 8100/110 (yes, aren't I the lucky one!), which comes with a 2 gigabyte drive and, of course, a built-in CD-ROM drive. It also came with nine floppy disks with which to install the System!

The manual states that 'the accessory kit... provides System software on either a set of floppy disks or a CD-ROM disc.' So I wrote to Apple requesting a CD-ROM disc, having had cause on two occasions to re-install the System software, which takes about 20 minutes.

I had a phone call from their Assistance Centre to advise me that the inclusion of floppy disks or CD-ROM depends upon which country you live in! Inexplicably, it seems that we peasants in the UK who spend around £4,000 on this high-end machine have to put up with archaic floppies. Can you imagine buying a Rolls-Royce, only to find that it has no electronic ignition but does come with a starting handle?
Michael G Hancock
Croydon, Surrey

Only if it was a right-hand-drive model. Normally, if you buy a Mac with CD-ROM drive you get the System on CD. Apple tell us that the 8100/110's specific Enabler is not on a CD, so you need that on a floppy – but you could surely get the rest on CD!

HOW TO GET IN TOUCH WITH MACFORMAT

- Our address for letters is on page 36 – the shorter your letter, the better its chances of being printed. Longer letters may be published in our regular 'Soapbox' section (on page 121 this month). If you'd like a letter included in 'Readers' Corner' on our CD-ROM, make sure it contains no defamation or obscenity, then send it in as a *TeachText* document on a disk marked 'MACFORMAT Readers' Corner'. Include your name and address, and note that we can't return your disk.
- Our fax number is 01225 446019. Please write 'MACFORMAT' prominently at the top so that our receptionists know which of Future Publishing's 30-something magazines to forward it to!
- E-mails are welcome at:
  macformat@futurenet.co.uk
  or **macformat@cix.compulink.co.uk**
  Or via AppleLink it's simply:
  MacFormat
- Sorry, but personal replies to letters, faxes or e-mails are impossible – it's all we can manage to get the magazine out each month!
- For queries about subscriptions, write direct to: **Subscription Enquiries, Future Publishing, Freepost (BS4900), Somerton, Somerset TA11 6BR.** No stamp is needed if you're posting within the UK. Or you can phone 01225 822510 (8.45am – 4.30pm), fax 01458 274378, or e-mail:
  subs@futurenet.co.uk
- If you have a defective cover disk or CD-ROM, please do not return it to the editorial address. We do not have any replacement disks here. The addresses for duff disks and CDs are on the disk pages every issue.
- The legal bit, just in case: all correspondence sent to our editorial address (by mail or by any electronic means) will be considered for publication unless you specifically state otherwise, and we reserve the right to edit published letters for reasons of space, clarity or legality.

Two more MACFORMAT binder winners: Phil ('Dr 3D') McNally sent us this postcard of one of his own works, entitled 'Car'. Poignant understatement, that, we think. Tim Askew of Orwell, near Royston, Herts., sent a picture with an even more bizarre title: 'Satisfied, 1956'. We're not quite sure who or what the title refers to, and we don't want to know. But remember, whenever you write to MACFORMAT or enter one of our competitions, an eye-catching postcard could win *you* a binder!

MacLine
BRITAIN'S FAVOURITE MACINTOSH MAIL ORDER COMPANY

MacLine

FAX 0181 401 1112
0181 401 1111
MILL HOUSE • MILL LANE • CARSHALTON • SURREY • SM5 2WZ

MEMORY

SIMMA	1Mb SIMMS - 80ns (1 * 2) £32
SIMMB	1Mb SIMMS - 80ns (1 * 8) £32
SIMMC	2Mb SIMMS - 80ns..... £59
SIMMD	4Mb SIMMS - 70ns..... £99
SMMB	4Mb SIMMS - (72pin) 80ns..... £115
SIMMF	8Mb SIMMS - 70ns..... £259
SMMC	8Mb SIMMS - (72pin) 80ns..... £235
SIMMH	16Mb SIMMS - 70ns..... £425
SMMD	16Mb SIMMS - (72pin) 80ns..... £375
SPxx	PowerBook Memory (all sizes)..... call

WORD PROCESSING

WRD5 **Microsoft Word 6.0** (market leading WP heavyweight) . . £265.00
NSWR **Nisus Writer 4.0** (multiple languages capability) . . . . . .special
WDP3 **WordPerfect 3.1** (hot new version of famous PC WP) . . . . .special
WRNB **Write Now 4.0** (fast, includes Correct Grammar) £45.00
OXEDC **Oxford English Dictionary** (the whole thing on CD ROM) .£425.00
THDR7 **Thunder 7** (single spellcheck & thesaurus for all apps) . . . £49.00

DATABASES

4DIM **4th Dimension 3.0** (heavyweight of the databases) £695.00
4DFR **4D First** (low cost relational database) £189.00
ACTA **ACT!** (excellent contact management) £149.00
CORG **Claris Organiser** (full featured new database) £45.00
DYDX **Day to Day** (best for managing/printing contacts) £29.00
EXPR **Expresso** (actual desktop diary for your Mac) £25.00
FLMK **FileMaker Pro 2.1** (best flat file, everyone needs it) . . . . . .special
FLMS **FileMaker Pro Server** (speed up multi user access) £1095.00
FOXB **FoxPro 2.6** (fast DB with great interface, reads dBase) . . . £65.00
INFG **InfoGenie** (info organiser, supercedes QuickDex) £45.00
CKBD **Three by Five** (5 mouse rated computer "corkboard") £79.00
TPDP **TouchBase/DateBook Bundle** (contact & calendar) £35.00

BUSINESS

GENERAL

CLWK **ClarisWorks 3.0** (market leader of the integrated world) . . £110.00
DLTG **DeltaGraph 3.5** (popular, varied 2D & 3D graphing tool) .£115.00
INCL **In Control** (to-do list manager, outliner, columns) £89.00
EXCL **Microsoft Excel 5.0** (market leader, great features) £265.00
MSOF **Microsoft Office 4.2** (Word, Excel, PowerPoint) £375.00
WRKS **Microsoft Works 4.0** (WP, DB, Comms, Draw, SSheet) £99.00
MSPJ **Microsoft Project** (full featured for most requirements) . . £335.00
NUTD **Now Up-To-Date 3.0** (calendar and reminder system) £59.00
NOWB **Now Up-To-Date 3.0 & Now Contact 3.0 Bundle** £59.00
SINP **SignPost** (UK, Europe, USA route planner) . . . . . .from £79.00

ACCOUNTING

ACCx **Access 3.0** (modular multi-user office accounting) . .from £395.00
MCMY **MacMoney 4 UK** (home accounts/budgeting package) . . . £65.00
MYOB **MYOB** (fully integrated single user business accounts) . . . £149.00
RITZ **Ritz** (powerful and comprehensive for smaller business) . . £245.00
SGAC **Sage Accountant** (accounting's biggest name) £249.00

PRESENTATION

ASTD **Astound** (full featured, reads PowerPoint & Persuasion) . . . £99.00
CLIM **Claris Impact** (multi functional presentation tool) £179.00
PERS **Persuasion 3.0** (high end presentations with outliner) . . . £255.00
PWPT **PowerPoint 4.0** (powerful, intuitive, easy inteface) £265.00

GRAPHICS

PAINT & DRAW

DBLR **Dabbler** ("low end" Painter) £65.00
FRND **Freehand 5.0** (professional PostScript drawing & text) . . . £325.00
CLDW **ClarisDraw** (powerful, easy to use draw package) . . . . . .special
ILST **Illustrator 5.5** (pro PostScript drawing, text & layout) . . . £299.00
KPTV **KPT Vector Effects** (Illustrator/FreeHand FX Plug-Ins) . . . £110.00
PNTR **Painter 3.1** (the premiere painting program) £235.00
STRM **Streamline 3.0** (superb PostScript auto-tracing tool) £105.00

DARKROOM & RETOUCHING

DBLL **Debabelizer Lite** (converts graphic file types) £89.00
KPTX **Kai's Power Tools 2.1** (amazing filters for Photoshop) £95.00
KPTC **KPT Convolver** (adds power and ease to Photoshop) £95.00
LIVP **Live Picture** (real-time photographic retouching) £795.00
PHSP **PhotoShop 3.0** (the pros choice, now even better) . .from £399.00

CAD & MODELLING

ADIM **Dimensions** (Adobe's 3D extension for Illustrator) £110.00
INFD **Infini-D 2.6** (leading 3D modelling & rendering tool) . . . £445.00
KPTB **KPT Bryce** (3D Skies and landscapes) £95.00
MCAD **MiniCad** (native professional 3D design & analysis) £495.00
RYDD **Ray Dream Designer** (3D design and modelling) £235.00
STRVP **StrataStudio Pro** (fast, native 3D modeller) £895.00
TRBC **TurboCAD** (powerful, budget CAD) £79.00

DESKTOP PUBLISHING

ACRA **Adobe Acrobat 2.0** (paperless publishing revolution) from £149.00
CAxx **Click Art** (excellent series of clip art) . . . . . .from £32.00
CBxx **Corel Images** (25 CDs of clip art quality photographs) . . . £129.00
FTCH **Fetch** (superb image database system) £85.00
HOMP **Home Publisher** (budget DTP for "home users") £59.00
3GIx **Images with Impact** (4000 clip art images on CD ROM) . . £299.00
PMKR **PageMaker 5.0** (power and ease of use 68k /PowerMac) . £415.00
QKXP **Quark Xpress 3.3** (the professional's choice) £599.00
QKXZ **Quark Xpress 3.3** (Power Mac Native version) £665.00
TYPY **Typestry** (create 3D fonts with textures) £159.00
TYSL **TypeStyler** (manipulates PostScript fonts) £99.00

FONTS

MNPF **Monotype Font CD 4.0** (Monotype & Adobe Fonts, plus more!) £49.00
ATM **ATM 3.8** (smooths screen and print fonts) £39.00
SATM **Super ATM** (view documents without the fonts installed) . . £85.00
FNTG **Fontographer 4.1** (best professional font creator) £345.00
ATR **Type Reunion** (gives hierarchical font menus) £45.00

PRINTERS

T8 **DataProducts T8** (600dpi A3 PostScript laser) £1995.00
ECSA **Epson Stylus 720** (brilliant quality colour inkjet) £375.00
BLPEA **GCC BLP Elite 600** (fast, PostScript, 4Mb, edge to edge) . £1095.00
ELXA **GCC Elite XL608** (A3, 600dpi, edge to edge printing) . . . £2145.00
S600 **GCC SelectPress** (A3 600dpi, edge to edge) £2995.00
HP3A **HP DeskWriter 320** (portable colour inkjet) £195.00
HP54 **HP DeskWriter 540** (superb new inkjet, Appletalk) £245.00
HP66 **HP DeskWriter 660C** (colour and mono in one) £345.00
LBWR **LabelWriter II** (mini thermal printer produces labels) . . . £159.00
ML6A **Texas MicroLaser** (600dpi A4 PostScript 2Mb RAM) £615.00
MWR2 **Texas MicroWriter** (300dpi A4 PostScript laser) £490.00
PWPR **PowerPrint** (driver and cable for non-Apple printers) £125.00

MONITORS

FR17T **Formac 17" Trinitron Monitor** £545.00
FR20T **Formac 20" Trinitron Monitor** £1295.00
RDCM **Radius Colour Pivot** (unique tilt system) £695.00
RD2V **Radius IntelliColour 20" Monitor** £1399.00
SN15 **Sony 15" Trinitron Monitor CPD 15SF1** £359.00
SN17B **Sony 17" Trinitron Monitor CPD 17SF1** £635.00
THGx **Thunder IV Video Cards** . . . . . .from £1875.00

SCANNING

AFS2 **Agfa StudioScan II** (2400dpi, fast, the best) £699.00
EPSB **Epson GTX6500** (1200 dpi colour inc P'Shop & O'Page) . . . £465.00
SMII **Microtek ScanMaker II** (great quality 600dpi) £349.00
COOL **Nikon CoolScan** (35mm slide scanner) £1125.00
STAX **Nikon AX1200** (fast, 1200dpi res A4 desktop scanner) . . . £1095.00
OMPG **OmniPage 5.0** (OCR directly into applications) £245.00
SP35 **Polaroid SprintScan** (fast 35mm slide scanner) £1995.00
PPRT **PaperPort** (mono desktop OCR and scanning) £315.00

MULTIMEDIA

ELAS **Elastic Reality** (seriously professional morphing) £195.00
MRP2 **Morph 2.5** (morph from one QuickTime movie to another) £79.00
MDRT **MacroMind Director 4.0** (key multimedia tool) £795.00
PRMR **Premiere 4.0** (Adobe's brilliant QuickTime editor) £399.00
TRNJ **Transjammer** (100s of transitional effects for Premiere) . . . £89.00
VIDD **Video Director** (edit your home videotapes) £85.00
VDVx **VideoVision** (Radius' superb video digitiser) £1895.00

PC COMPATIBILITY

ACPC **Access PC 3.0** (read/write PC floppys from your Mac) £65.00
DSMT **DOS Mounter Plus** (same as above) £59.00

RITZ ACCOUNTING

only **£245** with free Payroll
Special until end of August only

"Powerful, easy to use, outstanding, excellent, brilliant and heartily recommended."
Just a few of the words used by Ritz users to describe their feelings about these award winning accounting packages.

Also available:
Ritz Median (with free Payroll) £169.00
Ritz Payroll £105.00

COMMUNICATIONS

MLPT **MacLink Pro** (best Mac/PC link with100's translators) . . . £110.00
PCEX **PC Exchange** (Apple's own brand software) £49.00
SOFT **Soft PC Universal** (DOS emulation on a Mac) £75.00
SOFWN **SoftWindows** (run Windows on a Power Mac) £245.00
4SIV **4Sight FaxLight** (5 user network fax system) . . . . . .from 445.00
OSTA **ISDN Cards** (OST MacSnet) £745.00
SPR1 **Sportster FaxModem** (14,400 baud, BABT approved) . . . £130.00
SPR3 **Sportster FaxModem** (28,800 baud, BABT approved) . . . £229.00
SPRC **Supra FaxModem** (top quality, lowest priced 14.4 baud) . .£95.00
SPRA **Supra FaxModem** (top quality, lowest priced 28.8 baud) .£215.00
MICL **Personal Microphone** (low cost but powerful comms) . . . £39.00
STCH **Snatcher** (easy to use Internet file transfer software) £35.00
TLGD **TelePort Gold II** (14.4 modem from Global Village) £135.00
TLPT **TelePort Platinum** (28.8 modem from Global Village) . . . £245.00

POWERBOOK

CPU **CPU** (excellent collection of PowerBook utilities) £49.00
CPCC **Car Power Adaptor** (plug in to the lighter) £49.00
INSY **Inline Sync** (syncs files between PowerBook & Mac) £39.00
ROAD **On The Road** (automatic deferred printing & faxing for P.B.s) . .£79.00
CCPx **PowerBook Carry Case** (Apple or third party) £19.00
PWPx **PowerPort** (Global Village internal fax modems) . . . .from £99.00
WIZP **WizTools PowerBook** (excellent suite of utilities) £55.00

NETWORKING

RWY5 **RunShare** (up to 5 times quicker file transfer) . . .five user £499.00
ANET **Anet** (LocalTalk (AppleTalk) connector boxes) £14.00
FLTK **MNet** (PhoneNet connector boxes) £12.00
QKML **QuickMail 3.0 10 User** (powerful flexible E-Mail) £369.00
TMBK **Timbuktu Pro** (control Mac/PC screens over network) . . . £110.00
ASPR **AsantePrint** (Ethernet to AppleTalk printer router) £275.00
ETWx **EtherWave** (daisychain Ethernet from Farallon) £165.00
Ethernet Cards (Asante, Shiva, Focus) . . . . . .from £69.00
Ethernet Tranceivers (Asante, Shiva, Focus) . . . . . .from £36.00

HARDWARE

INPUT DEVICES

KBCE **Extended Keyboard** (15 function keys, numeric pad) £49.00
MHWR **MacHandwriter** (character recognition A4 tablet) . . .from £265.00
QCKC **QuickCam** (mono video camera for QuickTime) £115.00
AGMP **QuePad** (perfect for most arcade type games) £39.00
AGMS **QueStick II** (joystick for the control you've always wanted) .£59.00
TMADD **Thinking Mouse** (4 button with software) £65.00
TMADB **Turbo Mouse** (top selling trackball) £79.00
WCART **Wacom ArtPad** (handy stylus and tablet) £135.00
WCA4 **Wacom A4 UD1212** (professional, pressure sensitive) . . . £389.00

ACCELERATORS,CHIPS and BOARDS

PP66 **Daystar Power Pro** (PowerPC accelerators) . . . . . .from £1295.00
CPLx **Math Co-Processor** (speed up your Classic II or LC) £39.00
VR256 **256K VRAM Chips** (adds more colours) £20.00
VR512 **512K VRAM Chips** (adds more colours) £29.00

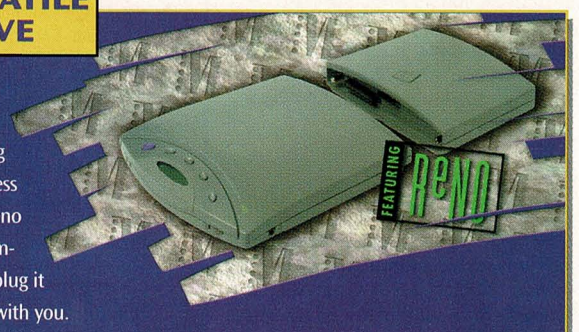
ACCESSORIES

CBxx **Cables** (we have a wide range - please ring) . . . . . .call
TNxx **Toners/Ink Cartridges** (for laser & inkjet printers) . . . . . .call
FLPx **Floppy Disks** (pre formatted) . . . . . .from £0.55
MSMT **Mouse Mat, Wrist Rest, Dust Covers** . . . . . .from £5.00
AGxx **Anti Glare Screens** (eases eyestrain) . . . . . .from £35.00
SESY **Security Systems** (is your Mac vulnerable to theft) . . .from £29.00

PROGRAMMING

FNTR **Frontier** (first Finder level scripting system for the Mac) . . £295.00
HYPC **HyperCard 2.3** (new version, more power) £95.00
CDWB **Metrowerks Code Warrior Bronze** (680x0 compiler) £65.00
CDWG **Metrowerks Code Warrior Gold** (PowerMac compiler) £275.00

THE MOST VERSATILE CD-ROM DRIVE



Introducing Reno With 180ms access time, this awesome little drive allows you to run demanding games, educational titles or business applications with ease. Connect Reno to your desktop Mac for a fully compatible double-speed CD drive or plug it in to your PowerBook and take it with you.

Its sleek compact design lets you use it anywhere and, with either AA batteries or AC power, anytime. And Reno isn't just another CD-ROM drive, it's a CD-ROM player so you can listen to your audio CDs while you work. Headphones and soft carry case *included*.

ONLY £245.00

MacLine Policy

*Credit cards will not be charged until the order is shipped.
*If a partial order is despatched, the balance is sent free of additional shipping charges.
*All goods are sent by a courier service. A signature will be required on delivery.
*Same day delivery in London area is available.
*Defective goods are replaced immediately, subject to availability of stock.
*Prices are correct at the time of going to press. E&OE. We cannot guarantee the prices printed here as they are out of our control and will occasionally be higher or lower. Please check before placing an order.

ALL OUR PRICES ARE EXCLUSIVE OF VAT

CALL FOR OUR FREE CATALOGUE

Access · American Express · Visa · Switch

BusinessCentre

Ordering & Payment

*To order call Monday - Friday, 9.00 am to 6.00 pm.
*Add £5.00 for standard delivery and £10.00 for next working day delivery. If the goods are not in stock when you order, the charge for delivery still applies.
*Add VAT to the total price (except books), including shipping.
*Payment is by credit card, cheque or money order only.
*Government Departments, Educational establishments and Plc companies are welcome to purchase with an official order, subject to status.
*International orders accepted with credit card only. Shipping charge will added at cost price.

XYRATEX DRIVES

UNLIMITED STORAGE FOR DESIGN AND IMAGE WORK

Formerly the drive division of IBM, Xyratex offer a unique solution to data storage. Use the drives just like a floppy or optical cartridge, they are small and light but they offer the same transfer rates as normal SCSI Hard Drives - which they are. It is also far more secure than normal drives, simply pull the drive out and take it away with you, the housing stays connected – you don't even need to shut down the Mac!

NEW PRODUCT

01814U1111

Single Drive Housing £189.00
Five Drive Housing £285.00
340Mb Removable Module £325.00
540Mb Removable Module £390.00
810Mb Removable Module £595.00

ZCP **Symantec C++** (best object oriented programming tool) .£285.00
SPCD **SuperCard 2.0** (more powerful than HyperCard) £299.00
THKC **Think C 6.0** (the leading Mac app development tool) . . . £185.00
THKP **Think Pascal 4.0** (excellent developer level compiler) . . . £165.00
FTBS **FutureBasic** (far and away the best Basic for Mac) £79.00

EDUCATION

UP TO 12 YEARS

AMAN **Amazing Animation** (cool animation for kids) £45.00
FNAR **Fine Artist** (great fun paint program) £35.00
KDTM **KidsTime** (5 learning programs for the 3 to 7 year old) . . . £29.00
KDMH **KidsMath** (takes kids from counting to arithmetic) £29.00
KDPX **KidPix II** (wonderful paint program with sound effects) . . £29.00
LPCK **Launch Pad** (animated desktop, secures your files) £25.00
NMBM **NumberMaze** (award winning arithmetic tutor) £39.00
RDMZ **ReadingMaze** (letter recognition to sentences) £35.00
SPLX **Spelunx** (brilliant game-like learning environment) £29.00

FROM 10 YEARS UP

CRWR **Creative Writer** (DTP for kids) £35.00
DCFM **Decimals & Fractions Maze** (helps older kids) £35.00
TYEN **Typing Instructor** (good training from basics to touch) . . . £25.00
VYGR **Voyager Astronomy** (fascinating desktop planetarium) . . .£105.00
WIWD **Where in World is Carmen DeLuxe** (geography based) £29.00

Special low Education prices are available on some products, including Microsoft, Claris and others, to authorized educational establishments with Educational Purchase Orders.

CD ROM

GENERAL/GAMES

CDRT **CD ROM Toolkit** (speeds up CD access) £59.00
7GCD **7th Guest** (an incredible real time 3D adventure) £35.00
HRDN **A Hard Day's Night** (The Beatles Movie on CD) £29.00
ALCD **Ancient Lands** (multimedia history) £39.00
BTCHC **Battle Chess** (full colour animated Chess Game) £35.00
B9CD **Beethovens 9th** (the symphony and all about it) £65.00
BMUG **BMUG** (huge collection of public domain and shareware) .£29.00
CIRCD **Circus** (interactive cartoon for kids) £29.00
DDNC **Daedalus Encounter** (3 CD sci-fi adventure) £34.00
GODCD **How God Makes God** (ingeneous spiritual guide) £25.00
IRNB **Iron Helix & Dark Seed** (fantastic space/adventure bundle) £25.00
LYKC **Legend of Kyrandia** (journey through magical lands) £29.00
MRTCD **Marathon** (the best selling game even better on CD) £39.00
MYST **MYST** (magical mystery adventure) £35.00
PRNCD **"Prince"** (music and multimedia from the great one) £35.00
RTTZ **Return to Zork** (multimedia adventure game) £35.00
RBAS **Rebel Assault** (Star Wars like game - brilliant) £35.00
GNGB **Resident's Gingerbread Man** (weird, but 5 mouse rated) . . £29.00
THMP **Theme Park** (create the best theme park ever!!) £34.00
SPTCD **This is Spinal Tap** (the movie and more on 2 CDs) £25.00
JMAN **The Journeyman Project** (amazing 3D adventure) £32.00
EXPL **Xplora** (Peter Gabriel's amazing multimedia CD) £29.00

REFERENCE

3DAT **3D Atlas** (simply wonderful) £49.00
MAGCD **Art Gallery** (Microsoft's tour of the National) £39.00
BRHT **Brief History of Time** (the bestseller) £49.00
BKSCD **Book Shelf** (superb CD ROM for everyday reference needs) .£75.00
CINI **Cinemania 95** (19000 movie reviews and more) £39.00
DSTCD **Distant Suns** (astronomy based CD) £65.00
DCLW **Dictionary of the Living World** (award winning) £29.00
NCRT **Encarta '95** (fantastic multimedia encyclopedia) £75.00
RPFCD **Ephemeral Films** (fascinating US archive of films) £23.00
FALCD **For All Mankind** (NASA archive videos from space) £25.00
GRLCD **Groliers Encylopaedia 95** (21 volumes, 9 million words!) . .£79.00
HCWCD **How Computers Work** (excellent guide to technology) . . . £40.00
JPTR **Jupiter** (photos of the comet impact) £15.00
MCBT **Macbeth** (the Scottish Play) £65.00
MICD **Musical Instruments** (Microsoft's excellent entry) £39.00

VISIT OUR WWW PAGES www.atlas.co.uk/macline.htm
EMAIL YOUR ORDER OR QUERY orders@macline.co.uk

OEDCD **Oxford English Dictionary** (the whole thing on CD ROM) .£425.00
REDCD **Red Shift** (superb astronomy program) £49.00
SHCD **Shakespeare Complete Works** (at your fingertips) £19.00
SBPCD **Small Blue Planet** (pictures, geography of the planet) . . . £49.00
STTM **Star Trek Interactive Tech Manual** (tour de Enterprise) . . . £29.00
TLFA **Time/Life Astrology** (astrology primer) £19.00
WRPA **Warplanes** (an interactive history) £45.00
WCSCD **World Cup Soccer** (USA 94 and archives since 1930) £29.00

EDUCATIONAL

ARTT **Arthur's Teacher Trouble** (interactive story book) £29.00
ARTB **Arthur's Birthday** (more Arthur) £29.00
DINO **Dinosaurs** (the "must have" CD of the year) £45.00
GRME **Grandma and Me** (delightful kids story) £29.00
HHHS **Harry and the Haunted House** (the new best seller) £29.00
BDWH **How Your Body Works** (home reference) £29.00
KDPCD **KidPix Studio** (KidPix plus animation) £35.00
LFCD **Learn to Speak French** (aah... learn to speak French) . . . £115.00
MWCD **Math Workshop** (math tutoring 5-12 age group) £34.00
PAWCD **P.A.W.S.** (hysterical dog's eye view of the world) £25.00
PTWL **Peter and the Wolf** (interactive fairy tale) £35.00
RUFF **Ruff's Bone** (adventures with Ruff the dog) £29.00
TRTH **Tortoise and the Hare** (the epic race) £29.00
UHBCD **Ultimate Human Body** (Dorling Kindersly's one) £55.00
WLJCD **Wallobee Jack/Lost Leonardo** (interactive kids cartoon) . . £19.00

MUSIC

BMTL **EZ Starter Kit** (MIDI interface, EZ Vision, book) £175.00
PRMC **Practica Musica** (teaches music theory and ear training) . . £75.00
SONG **SongWorks** (interactive music composition) £65.00
STDI **Super Studio Session** (8 voice composer and player) £69.00
MDIN **MIDI Interface** £59.00

UTILITIES & DA's

PRODUCTIVITY ENHANCERS, FILE & DISK MANAGEMENT

EASE **At Ease** (secure Finder replacement) £35.00
INVU **Conflict Catcher 3.0** (INIT manager and more) £55.00
CDU **CDU** (excellent collection of Desktop utilities) £49.00
NDBP **DiskDoubler Pro** (DiskDoubler,AutoDoubler,CopyDoubler) £65.00
FTF **First Things First** (brilliant alarms, reminders, to do's) £25.00
HDTKP **Hard Disk Toolkit** (Personal Edition) £59.00
HDTK **Hard Disk Toolkit** (the best formatter and checker) £125.00
MCTA **MacTools Pro 4.0** (disk safety and protection utility) £79.00
NUTD **Now Up-To-Date** (calendar and reminder system) £65.00
NUM **Norton Utilities 3.1** (best selling utilities package) £79.00
NOWU **Now Utilities 5.0** (suite of essential utilities) £65.00
POPF **PopUpFolder** (view folder contents with submenus) £30.00
QCKY **QuicKeys 3.1** (macro maker, time saver utility) £85.00
RAMD **RAMDoubler** (actually doubles your available RAM!) £49.00
SFDL **Stuffit DeLuxe** (famous file compression program) £59.00
SUIT **Suitcase 2.14** (manage your font menus) £49.00
WNWT **WindoWatch** (logs time usage of windows) £85.00

SECURITY

DKGD **DiskGuard** (control access to your hard drive) £69.00
FLGD **FileGuard** (serious protection for specific files) £145.00
MPR1 **MacPrefect** (secures most aspects of the Finder) £30.00

SCREEN SAVERS

AFDK **After Dark 3.0** (famous screen saver with many modules) .£25.00
DSNY **Disney Screen Saver** (simply magical) £27.00
STAB **Ultimate Star Trek** (screen saver and posters bundle) £39.00
FLTS **The Flintstones** (cartoon, movie and now..:) £19.00
LTSS **Looney Tunes** (famous cartoon screensaver) £25.00
DRTY **Underware** (humorous screen saver) £25.00

BACKUP & VIRUS PROTECTION

OPDT **DeskTape** (treats DAT as if it were a 2Gb drive) £249.00
PRSB **Personal Backup** (best value backup on the market) £35.00
REDX **Redux Deluxe 2.51** (powerful floppy backup) £49.00
RTSP **Retrospect 2.1i** (most sophisticated archival backup) from £145.00
SAM **SAM 4.0** (Symantec's anti virus utility) £49.00
VIRX **Virex 5.3** (best virus tracer & eradicator of all) £60.00

ENTERTAINMENT

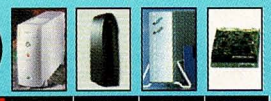
ARCADE

MBSL ✔**Best Sellers Pack** (Hellcats, Spectre, SuperTetris) £32.00
CRQ2 ✔**Crystal Quest 2** (Britain's favourite game) £22.00
FSHB ✔**Flashback** (Nintendo like adventure shoot-em-up) £25.00
FOTF ➢**Fury of the Furries** (Nintendo style platform game) . . . £25.00
LEM3 ✔**Lemmings/Oh No! More Lemmings Bundle** £22.00
MRTH ➢**Marathon** (prepare to meet thy "Doom") £39.00
PGLG ➢**PegLeg** (totally addictive invaders style game) £23.00
PROP2 ✔**Prince of Persia II** (more and better, can you resist?) . . £29.00

HARD DRIVES

THE CHOICE IS YOURS

only Quantum Drives used



CAPACITY	APPLE	D2	JET	INTRNL
500Mb	£315	£259	£225	£145
730Mb			£279	£195
1000Mb	£645	£545	£428	£329
1400Mb				
2000Mb		£875	£795	£715
4000Mb		£1225		£895

D2128 **d2 128Mb Optical Drive** £399.00
D2230 **d2 230Mb Optical Drive** £525.00
CE80 **d2 88Mb Syquest Drive** £265.00
R20C **d2 200Mb Syquest Drive** £395.00
D2DF **d2 4/8Gb DAT Drive** £885.00
R45C **44Mb Syquest Cartridge** £32.00
R80C **88Mb Syquest Cartridge** £36.00
R20C **200Mb Syquest Cartridge** £59.00
R12C **128Mb Optical Cartridge** £25.00
R23C **230Mb Optical Cartridge** £35.00

NEW...NEW...NEW

CDRN **Reno Portable CD ROM Drive** £245.00
ZIPA **Iomega ZIP Drive** £139.00

TRZL ✔**Triazzle** (brain teaser from Berkerley Systems) £19.00

SIMULATIONS

A10A ✔**A10 Attack** (the best flight sim around) £39.00
CYAC ➢**Chuck Yeager's Air Combat** (fly with Chuck) £34.00
CRBL ✔**Crystal Caliburn** (classic pinball game) £32.00
F18H ➢**F/A18 Hornet** (from the creators of Hellcats) £49.00
FLYN ➢**Flying Nightmares** (strategy and flight sim in one) £22.00
FLSM ✔**Microsoft Flight Simulator** (serious, realistic, accurate) . . £35.00
OOTS ➢**Out of the Sun** (dogfight in three WWII battles) £22.00
PGAG2 ✔**PGA Golf II** (far and away the best Golf game) £29.00
PLPG ✔**Links Pro Golf** (so realistic you'll think you're there!!) . . £34.00
SIMC2 ✔**Sim City 2000** (design and run your own city) £29.00
SIMT ✔**Sim Tower** (control and manage a tower block) £29.00
SYND ✔**Syndicate/Populous I** (control the world) £34.00
SIMC ✔**Sim Classics** (Sim Life, Ant and City in one bundle) £29.00
THME ✔**Theme Park** (create the best theme park ever!!) £34.00

BOARD/CARD GAMES

ITG10 ✔**10 Intelligent Strategy Games** (draughts, backgammon) £29.00
BRDG ✔**Bridge** (from novice to advanced playing levels) £24.00
CHCH ✔**Chess Champion** (best Chess game) £25.00
ERIC ✔**Eric's Ultimate Solitaire** (a dozen patience games) £35.00
PWPK ✔**Power Poker** (dozens of different poker games) £29.00
SHNG ✔**Shanghai II** (great graphics, addictive brain teaser) £17.00

KEY ✔ works on most Macs, ➢ Colour Macs only.
Please check whether your chosen game is compatible with your Mac when ordering

BOOKS & TRAINING

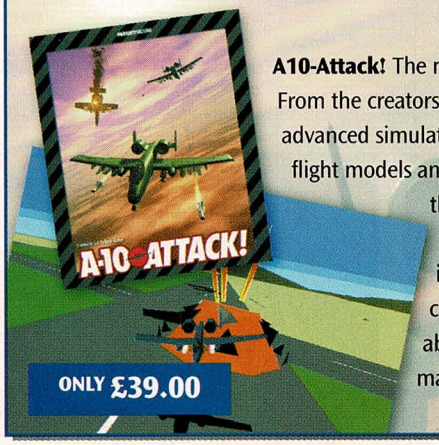
Top 12 best-selling books

BK5010 **Internet Starter Kit** £27.50
BK6035 **Quark Xpress Book 4th Ed.** £29.99
BK4075 **Mac Bible 5th Edition** £29.95
BK4055 **Little Mac Book 3rd Ed.** £14.99
BK5005 **Internet Tour Guide Mac** £26.40
BK2015 **Photoshop Wow Book** £31.61
BK2180 **Macworld Photoshop V3.0 Bible** £38.99
BK1195 **Tao Of Applescript** £23.35
BK3005 **Using Filemaker Pro** £25.95
BK1185 **Resedit 2 Complete** £28.95
BK1025 **Complete Hypercard 2.2 4 ed** £32.50

STOP PRESS! SPECIAL OFFER

MacWrite Pro (save over £100!) . . **£39.00**
ClarisDraw (save over £120!!) **£95.00**
Both together (save over £200!!!) **£135.00**

THE HOTTEST FLIGHT SIM FINALLY LANDS!



A10-Attack! The most eagerly awaited flight simulator, ever! From the creators of award-winning Hellcats comes the most advanced simulator to hit the Mac. With physically accurate flight models and intriguing missions, A-10 Attack delivers the hottest combination of action and strategy around. Attention to details such as moving flaps, object dynamics, landscapes with canyons, intelligent enemies and the future ability to plug in to a 'Virtual Battlefield' with many network players, ensure A-10's success.

MacLine
BRITAIN'S OLDEST MACINTOSH MAIL ORDER COMPANY

MacLine

BRITAIN'S FAVOURITE MACINTOSH MAIL ORDER COMPANY

PowerPC PowerPC PowerPC

...NEW...NEW...NEW...NEW...

PERFORMA 5200 12/500/CD

NEW PRODUCT 0181 401 1111

Based around the brand new Power PC 603 chip running at 75MHz, the 5200 combines the CPU and a 15" multi-scan monitor in one housing. It has a built-in quad speed CD ROM drive and the (optional) TV and video capabilities of the Performa 630. With its 256k cache memory, it is equivalent in speed to a Power Mac 6100 for a lot less. Also includes ClarisWorks and other software.

only £1265

PowerPC PowerPC PowerPC

Power Mac 8100/100

8/700

optional CD, AV

from only £2445 CPU only

PowerPC PowerPC PowerPC

Power Mac 6100/66

8/500

including 486 DOS card

only £1540 CPU only

PERFORMA BUNDLES

630D **Performa 630 4/250 & Performa Display** & keyboard, ClarisWorks 2.1, PC Exchange £895.00

630E **Performa 630Plus 8/250/CD & 15" Multiple Scan Display** & software £1099.00

630Q **Performa 630Plus 8/350/CD/TV/Video & 15" Multiple Scan Display** & software £1299.00

630H **Performa 630 12/500/CD/DOS & 15" Multiple Scan Display** £1475.00

5200B **Performa 5200Plus 8/500/CD** & s'ware £1375.00

5200C **Performa 5200Plus 12/500/CD/TV** & software £1525.00

6200F **Performa 6200Plus 12/500/CD & 15" Multiple Scan Display** & software £1275.00

6200B **Performa 6200Plus 8/500/CD & 14" Monitor & Speakers** & software £1295.00

6200C **Performa 6200Plus 8/500/CD & 15" Multiple Scan Display** & software £1445.00

6200D **Performa 6200Plus 12/500/CD/TV & 14" Monitor & Speakers** & software £1495.00

6200E **Performa 6200Plus 12/500/CD/TV & 15" Multiple Scan Display** & software £1625.00

"& software" refers to: PC Exchange, ClarisWorks, Typing Teacher, Clip Art collections, Spectre Supreme, Groliers Encyclopaedia, Guinness disk of Records, Microsoft Dinosaurs, San Diego Zoo and three other CD ROMS.

PERFORMA CPUs

630A Performa 630 4/250 ..... £725.00
630B Performa 630 8/250/CD £945.00
630C Performa 630 8/350/CD/TV/Video-in ... £1150.00
630R Performa 630 12/500/CD/DOS card £1325.00
5200A Performa 5200 8/500/CD £1265.00
6200A Performa 6200 8/500/CD £1045.00

all the above include keyboard, ClarisWorks,

POWER MACs

PM6A Power Mac 6100/66 8/500 ..... £1125.00
PM6B Power Mac 6100/66 8/500/CD £1340.00
PM6E Power Mac 6100/66 8/500/DOS Card ... £1540.00
PM6F Power Mac 6100/66 8/500/CD/DOS Card £1640.00
PM7A Power Mac 7100/80 8/350 ..... £1695.00
PM7C Power Mac 7100/80 8/700/CD/AV £1995.00
PM8A Power Mac 8100/100 8/700 ..... £2445.00
PM8B Power Mac 8100/100 16/700/CD £2795.00
PM8C Power Mac 8100/100 16/1Gb/CD/AV ... £3095.00
PC8H Power Mac 8100/110 16/2Gb/CD £3445.00

APPLE SERVERS

AW61A AWS 6150 16/700/CD & AppleShare 4.1. £2295.00
AW81A AWS 8150 16/2000/CD/DAT & AppleShare 4.1 ..... £5295.00
AW91A AWS 9150 24/4000/CD/DAT & AppleShare 4.1 ..... £7395.00
AWS9B AWS 95 32/2000/256/DAT & AppleShare Pro £6795.00
AWS9C AWS 95 ARA 16 Port Server £5495.00

POWERBOOKS

P15A PowerBook 150 4/250 ..... £745.00
P52A PowerBook 520 4/240 ..... £1225.00
P52B PowerBook 520c 4/240 ..... £1775.00
P52C PowerBook 520c 12/320/Modem £2295.00
P52G PowerBook 520c 12/320/Modem/GSM . £3195.00
P54C PowerBook 540c 4/320 ..... £2795.00
P54D PowerBook 540c 12/500/Modem £3145.00
P54Y PowerBook 540c 12/500/Modem/GSM . £3999.00
P28C PowerBook Duo 280c 4/500 ..... £2095.00
P28D PowerBook Duo 280c 12/500/Modem .. £2475.00
PDD2 PowerBook Duo Docking Station II £720.00
PMD PowerBook Duo Mini Dock £265.00

PowerPC PowerPC PowerPC

...NEW...NEW...NEW...NEW...

PERFORMA 6200 8/500/CD

NEW PRODUCT 0181 401 1111

Also based around the brand new Power PC 603 chip running at 75MHz, the 6200 is housed in the same case as the Performa 630. It has a built-in quad speed CD ROM drive and has the optional TV and video capabilities of the Performa 630 and supports up to a 17" monitor.

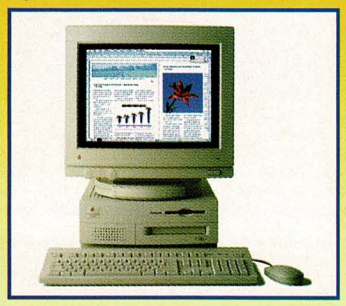
from £1045 CPU only

PowerPC PowerPC PowerPC

Power Mac 7100/80

8/350

optional CD, AV



from only £1825 CPU only

PowerPC PowerPC PowerPC

Power Mac 6100/66

8/500

optional CD, AV

from only £1125 CPU only

MacLine™

FAX 0181 401 1112

0181 401 1111

MILL HOUSE • MILL LANE • CARSHALTON • SURREY • SM5 2WZ

MacLine

FAX 0181 401 1112

0181 401 1111

MILL HOUSE • MILL LANE • CARSHALTON • SURREY • SM5 2WZ

NMP4	Newton MessagePad 110	£345.00
NMP5	Newton MessagePad 120	£425.00
NMPG	MessagePad 120 with GSM Bundle	£1195.00

APPLE MONITORS

M14C	14" Colour	£260.00
M15C	15" MultiScan Colour	£299.00
MAV14	14" Audio Vision Display	£355.00
M17C	17" Colour	£675.00
M20C	20" Colour	£1375.00

APPLE PRINTERS

STY12	StyleWriter 1200	£210.00
STYP	Portable StyleWriter	£235.00
CSP	Colour StyleWriter 2400	£395.00
IW	ImageWriter II	£260.00
LWP3	LaserWriter Personal 300	£450.00
LS32	LaserWriter Personal 320	£665.00
LS36	LaserWriter Select 360	£1045.00
LS36E	LaserWriter Select 360 Ethernet Adaptor	£175.00
L16A	LaserWriter 16/600 PS	£1595.00
L16C	LaserWriter 16/600 PS with Fax	£1745.00

ACCESSORIES

INPUT DEVICES

KB	Keyboard, Apple Design	£80.00
KBA	Keyboard, Adjustable	£165.00
KBE	Keyboard, Extended	£140.00
CD3	Apple CD 300e plus external	£195.00
CD3I/x	Apple CD 300i plus internal	£195.00
CSCN	OneScanner Colour	£575.00
AQT	Apple QuickTake 100 inc. interface	£275.00
ASP2	AppleDesign Powered Speakers II	£55.00
MIKA	Microphone	£19.00
MIKB	PlainTalk Microphone (AVs/PowerMacs)	£25.00
PLTx	PlainTalk Software	£34.00
MSADB	Apple ADB Mouse II	£39.00

GENERAL

APK	Apple Presentation Kit	£225.00
DCCA	DOS Compatibility Card for 6100	£410.00
NBC6	NuBUS Adaptor 610	£79.00
NBPC	NuBUS Adaptor 6100	£52.00
LCEx	Ethernet Card for 630	£59.00
GEOx	GeoPort Telecoms Adaptor	£99.00
STY2C	StyleWriter Cartridges	£15.00

POWERBOOK

P14B	PowerBook 140/145/160/170/180 Battery	£45.00
PNIC	PowerBook Duo Type III Battery	£55.00
P5IB	PowerBook 500 Battery	£89.00
GSMP	PowerBook 500 GSM Bundle	£1195.00
P14R	PowerBook 145/160/170/180 Recharger	£69.00
PDUR	PowerBook Duo Battery Recharger	£86.00
PDAC	PowerBook Duo AC Adaptor	£45.00
PWPA	PowerBook 100-180 AC Adaptor	£45.00
P5AC	PowerBook 500 AC Adaptor	£95.00
PBB	PowerBook Bag Business	£45.00
PBS	PowerBook Bag Standard	£22.00
P15B	PowerBook 150 Memory Adaptor	£24.00
PDEM	PowerBook Duo Express Modem	£225.00
PEM2	PowerBook 500 Express Modem	£345.00

APPLE SOFTWARE

AFP	Apple Font Pack	£49.00
ALTB	Apple LocalTalk Bridge	£79.00
AST	AppleScript Scripters Toolkit	£120.00
APSH4	AppleShare 4.02 Software	£1175.00
ASSA	AppleSearch Server & Clients	£875.00
ARAPS	Apple Remote Access Server	£135.00
ARAC	Apple Remote Access Client	£42.00
EASE	At Ease 2.0	£34.00
APD	Apple Personal Diagnostics	£79.00
EASW	At Ease 2.0 Workgroup	£125.00
HYPC	HyperCard 2.3	£95.00
INRT	Internet Router 3.0	£335.00
INPL	InterPoll	£89.00
SYSJ	Language Kit - Japanese	£145.00
SYSC	Language Kit - Chinese	£155.00
PCEX	PC Exchange 2.0	£35.00
PHFL	PhotoFlash 2.0	£99.00

PERFORMA 630

This is the best Mac since the SE30. It comes with 4Mb of RAM and a 250Mb Hard Drive, keyboard and a Performa monitor - and loads of software!

INCLUDES FREE COPY OF CLARISWORKS 2.1

only £895

PLTx	PlainTalk Software	£34.00
PFA	PowerBook File Assistant	£50.00
S75A	System 7.5 Upgrade on floppy disks	£65.00
S75B	System 7.5 Upgrade on CD ROM	£65.00
S75C	System 7.5 10 User Kit (CD & floppy)	£425.00

A FEW REASONS TO BUY IT FROM MACLINE...

MACUSER MAGAZINE DEALER OF THE YEAR

1993 & 1994

MACWORLD DEALER OF THE YEAR 1992

MACUSER HERO OF THE YEAR 1992

HOURS OF BUSINESS:
Mon to Fri 9 to 6, Sat 10 to 4

WHY NOT PAY US A VISIT

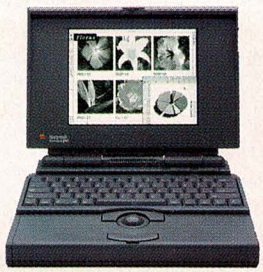
Why not call into our showroom and choose from a great selection of hardware, software and accessories all at incredibly low prices!! Close to central London with ample parking

We are only 15 miles from Central London, 7 miles from junc. 8 on M25, 25 minutes by train from Victoria Station and 5 minutes walk from Carshalton Station.

POWERBOOK 150

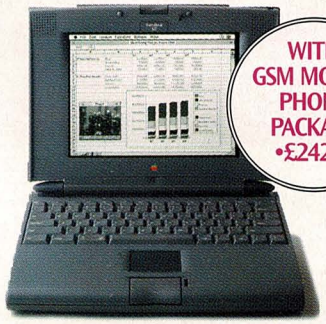
With its 33Mhz 68030 processor, the PowerBook 150 4/250 is really fast and the lowest cost Macintosh on the market too!

INCLUDES FREE COPY OF CLARISWORKS 2.1



only £745

POWERBOOK 520



WITH GSM MOBILE PHONE PACKAGE •£2420•

PowerBook 520 4/240 with passive matrix grey-scale screen and trackpad instead of trackball.

only £1225

POWERBOOK 540c

WITH GSM MOBILE PHONE PACKAGE •£3999•

PowerBook 540c series, with active matrix colour screen, trackpad instead of trackball, up to 500Mb internal drive, optional modem.

from £2795

Macline publishes a regular newsletter and catalogue. If you would like to receive them please telephone us or fill in and return the card below.

Please place me on your mailng list: MFAUG

Name .....

Company .....

Address .....

.....

.....

.....

Post Code ..... Phone .....

MacLine BRITAIN'S OLDEST MACINTOSH MAIL ORDER COMPANY

Get ON-LINE with Sportster®

FROM GOLDFISH TO GOLD BARS

SPORTSTER 14,400
MAC&FAX
£199*

Winner

mac&fax SPORTSTER

£299*
SPORTSTER 28,800
MAC&FAX

Whether you're a fish enthusiast or a money man needing the price of gold, there's something for you on the Information Superhighway. Sports forums, travel updates, the latest share prices, even Star Trekking... these are some of the things available to you.

Of course, you may be happy just using the e-mail and faxing facilities.

Either way you'll need a Sportster Mac&Fax modem from U.S. Robotics. At £199*RRP for 14,400bps and £299*RRP for 28,800bps, Sportster Mac&Fax lets you connect at the highest possible speeds. Saving you time and money.

And because most of the service providers use U.S. Robotics modems, you're assured of a trouble free connection.

All U.S. Robotics Sportsters are bundled with free data and fax software and a 5 year warranty.

For further details and information on where to buy your Sportster Mac&Fax, call U.S. Robotics on:

0800 225252

FIVE YEAR 5 WARRANTY

AVAILABLE AND WORLDWIDE ACROSS EUROPE

*Price excludes VAT

U.S. Robotics®
The Intelligent Choice in Data Communications

U.S. ROBOTICS LIMITED, 650 WHARFDALE ROAD, WINNERSH, WOKINGHAM
BERKSHIRE RG41 5TP TELEPHONE: 01734 228200 FAX: 01734 695555

GOING PLACES

If you're travelling the world – or just going on holiday down to the seaside – you *can* take your Mac with you! Or how about your Mac taking you to a virtual world...?

The world, as they've been saying for years, is getting smaller. Travel is getting cheaper – though it might not seem like it if you're still trying to scrape together enough for that weekend in Bournemouth – and it's getting easier – unless of course your route takes you within 50 miles of the M25. As the traffic jams themselves prove, half the population seems to be on the move at any given time, whether the reason is business, pleasure, or an urgent need to keep one step ahead of the Child Support Agency. One estimate says that over 40% of the global workforce is now 'nomadic', whether simply within a building, a city, a country or on a jet-setting international level.

If you're one of this peripatetic multitude, or just off on holiday, you're bound to miss your Mac. So how about a Mac you can take with you? We look at them all, starting on page 49, plus lots of extras as well, including Newtons (page 56) and portable printers (page 63). We'll even explore how PowerBooks are opening doors in schools (page 60).

Even if you're not on the move just at the moment, how about travelling the virtual world of the Internet? Our new series, starting overleaf, will take you by the hand and guide you every step of the way. So come with us – the world's just waiting for you!

Continued on next page

Wired World

How can you meet people and get loads of software without leaving the room? In a brand new series, Richard Hill is your guide to the world of the Internet.

NEXT ISSUE

So what do you need to get connected, and how does it all work? In part two, we take modems apart and invite you to meet your friendly service provider.

The Internet is right here, just waiting for you. All you need is a Mac, a few relatively cheap pieces of equipment and the right connections. But is it all it's cracked up to be? Can you actually make any practical use of it, or is it just something you cruise around in an idle hour or two? Recently, millions of people seem to have decided it's worth the time and trouble.

But what exactly is the Internet anyway? Computers can be linked together in all sorts of ways – via telephone lines or through physical connections like cables – to make a network. This enables them to exchange information, basically by being able to see what's stored on each other's hard drives. When enough people agree on the format that the information takes and how to make a connection – so that anyone with the right software can have access to it themselves – you have a network that spans the world. Which is what happened with the Internet.

Netscape: Welcome to Pathfinder
location: http://www.pathfinder.com/@@DTlrjgAAAAAAAJbz/pathfinder/welcome.html
PATHFINDER
FROM TIME WARNER
JUNE 26, 1995
A Risky Elixir of Youth
Better sex and stronger bones are just a few of estrogen's benefits. Before choosing this therapy, women must weigh increased cancer risks.
Meryl's Passion
After four kids and more than 40 years, Meryl Streep is burning up "The Bridges of Madison County" – and hitting a nerve about lost love and midlife desire.
Ground Control to Major Tom
What do you do after "Forrest Gump?" If you're Tom Hanks, you head for higher orbit with "Apollo 13", about the ill-fated 1970 moon mission.
Life Exclusive
Debuting today, a virtual photo session with Michael Jackson and Lisa Marie Presley by Life photographer Harry Benson.
TIME DAILY
Chechens Free Russian Hostages
High Court: Can't Block Abort. Clinic Access
Bloody Shoe Print Fits O.J.
EXPLORE
PATHFINDER
FAVORITE PLACES
BULLETIN BOARDS
SEARCH
Register with Pathfinder. It takes less than 90 seconds.
REGISTER
Get our free weekly e-mail newsletter COMPASS, an expanded edition of Hotpage.
COMPASS

The Web is the most polished area of the Internet, and it's attracting a lot of famous names onto it.

The backbone of the Net is a series of giant computers, which are owned by commercial companies, universities and other organisations. But in theory, any computer that's set up correctly can become a server – a machine that you can reach through the Internet. You could even make your Mac a server if you wanted, but most people prefer to use the services others generously provide.

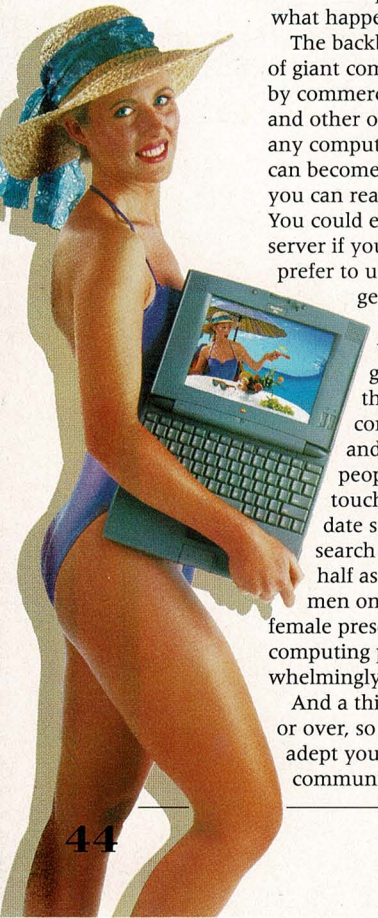
The number of people who use the system is growing at a furious rate as the cost of equipment and connection comes down – and refreshingly, it's attracting people who wouldn't normally touch a computer. An up-to-date survey from the British research group NOP finds there are half as many women as there are men on the Net. That's a healthy female presence, considering other computing pastimes are overwhelmingly carried out by men.

And a third of Net users are aged 35 or over, so it's not just technically-adept youth you'll get the chance to communicate with. NOP also reckon that 20% of the Net population never read a daily newspaper. Perhaps it's a case of, 'Why bother when more up-to-date news is available on-line?'

If you're not sure if you should be joining the millions on the Internet, or if you've only just got started and find you're stumbling a little, MACFORMAT's new series will have some of the answers you seek. Over the next few issues, we'll take a fresh look at the Net, assessing its usefulness to you.

We'll outline what you need to get on-line, and what you can do once you're there. We'll look at how to make the most of the features in Internet programs to get everything working smoothly. We'll show you how other people on the Internet can help when you don't know where to turn.

And we'll see if we can make any sense of the jargon! **MF**



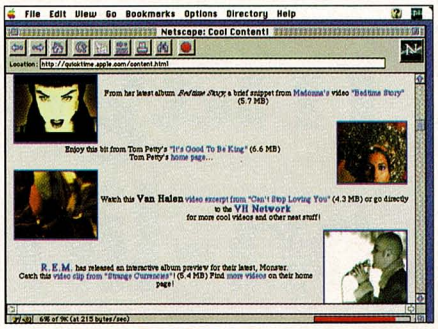
Netscape: FutureNet : MacFormat
MACFORMAT
Britain's best-selling Macintosh magazine
Welcome to the home page of Macformat, Britain's best-selling Mac magazine! Whether you're a veteran or a novice, we'll help you get more out of your Macintosh, whatever you use it for!
Alex Summersby, Editor
Contact: macformat@futurenet.co.uk
Information available:
Features
Macformat News - all the latest goings on
DTP ATE MY MAC! - the top DTP packages reviewed
Rainbow Warriors - a selection of affordable colour printers for the Mac
Take your Mac into the 21st Century - check out the ultimate Mac add-ons

MACFORMAT has joined thousands of other publications on the WWW with its own news and features.

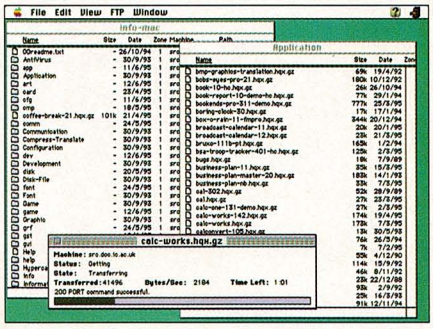
ENTER THE INTERNET

The Internet is ultimately just one giant network. But several ways to use it have emerged over the years – ways of storing and transmitting the information you desire. If you need two files from the same source, but they are stored using different systems, you'll need two sets of software to get at them. In effect, you have several distinct areas on the Net – although developments in the World Wide Web are gradually bringing different systems together, making this much less of a problem for you.

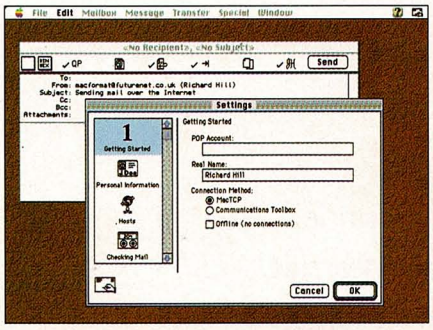
What most of these facilities have in common is that they are all ways of going in search of data – whether it's for information or software – and bringing it to your screen. E-mail is the exception – it involves sending and receiving correspondence as you'd send and get letters.


File Edit View Go Bookmarks Options Directory Help
Netscape: Cool Content!
Location: http://quicktime.apple.com/content.html
From her latest album Bedtime Story, a brief snippet from Madonna's video "Bedtime Story" (5.7 MB)
Enjoy this bit from Tom Petty's "It's Good To Be King" (6.6 MB)
Tom Petty's home page...
Watch this Van Halen video excerpt from "Can't Stop Loving You" (4.3 MB) or go directly to the VH1 Network for more cool videos and other neat stuff!
R.E.M. has released an interactive album preview for their latest, Monster. Catch this video clip from "Strange Currencies" (5.4 MB) Find more videos on their home page!

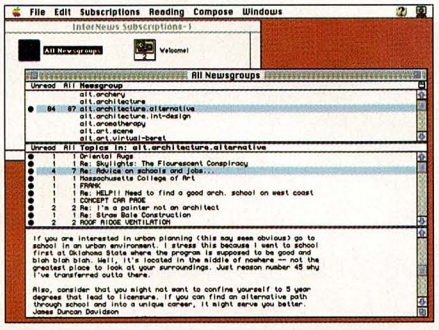
The World Wide Web (WWW) is the most glamorous part of the Net. With pages just like magazines – only they're on your Mac's screen – you can find a site on just about any subject you could possibly imagine. And you can move between sites with the click of a mouse using links (built-in connections you can use automatically) that could take you to a server on the other side of the world.



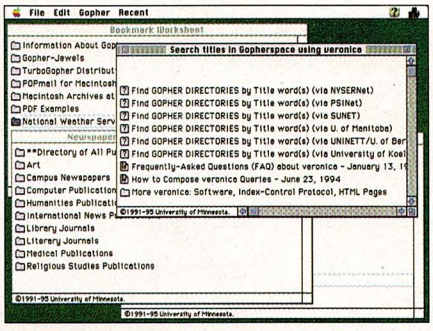
File Transfer Protocol (FTP) is a bit like walking into the biggest software store in the world. There are thousands of sites with free software or low-cost shareware to get hold of. Even with full-price commercial programs, there are often free updating utilities just waiting for you. We bring you the cream of the FTP sites on the MACFORMAT CD-ROM each month.



E-mail is simply an electronic mail system. Using a program like *Eudora* (above), you can type a message as you would in any word processor, then send it through the Net to your chosen destination – as long as that person has an e-mail address. And if you have an address yourself, you can receive mail just as easily.



Usenet, or the newsgroup area, is one of the liveliest parts of the internet. There are thousands of discussion groups you can drop in on – stopping only to read what's being said or adding your own comments, if you want to. And there are groups of people who pool their knowledge to solve technical problems.

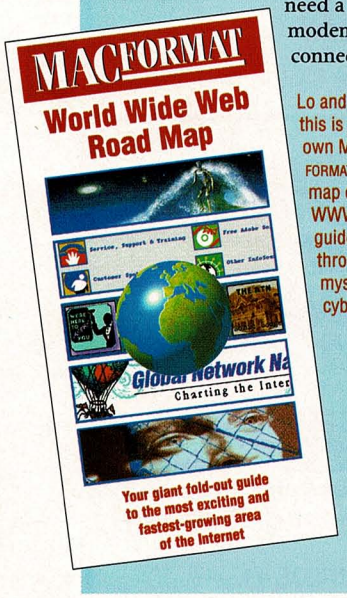


Like FTP, Gopher is a way of getting hold of all sorts of software files. It has a friendly, direct interface that uses folders and files in windows – just like using the Desktop. And there are search systems – known as Archie and Veronica – to help you find your way around. We'll be showing you how to use these as this series progresses.

MACFORMAT GOES NET CRAZY

We've come up with all sorts of ways to get you acquainted with the Internet this issue:

■ See the Web with only your Mac – just this once, you won't need a modem or a connection.


MACFORMAT
World Wide Web
Road Map
Global Network Na
Charting the Inter
Your giant fold-out guide to the most exciting and fastest-growing area of the Internet

Lo and behold, this is your own MACFORMAT road map of the WWW to guide you through the mysteries of cyberspace.

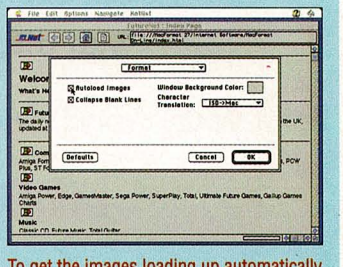
We've placed some of our FutureNet pages onto our CD-ROM for you to try for yourself. You can see how you can move between pages using the built-in links – although the real Web pages have far more than we've provided here. All you have to do is open up the MACFORMAT On-Line folder and drag the 'index.html' file onto the MacWeb icon until it becomes highlighted.

■ The *MacWeb* browser program you'll use to view our CD-Web pages with is just one of the bundle of programs we've put on this month's MACFORMAT CD-ROM. We have a host of key utilities for getting into the areas of the Net we've mentioned here, and others besides. And there are helper programs as well, so that you can make the most of the Net once you're on it.

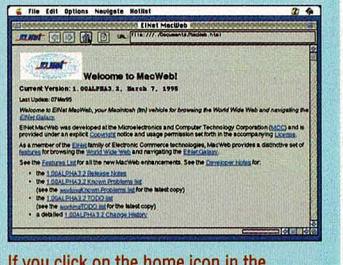
■ Our giant World Wide Web Road Map – free with this issue – gives you a taste of perhaps the most exciting area of the Internet. The Web has thousands of electronic publications, full of words and pictures, sound and video. Get started with our guide to 60 prominent and distinctive sites – and see how they link up with each other.

We're extremely sorry that our Road Map is not available to our overseas readers. But if you have a modem, you can still see what's on offer with the final part of our Internet bonanza...

■ Our real on-line pages – the kind you need a modem for rather than a CD-ROM drive – now feature a link to each one of the sites mentioned in the Road Map. By visiting the FutureNet site (it's free), you can explore any or all of the sites without even having to type in complex addresses – just click on the one you want to drop in on next. It couldn't be easier. The address to key into your Web browser is http://www.futurenet.co.uk/



To get the images loading up automatically in *MacWeb*, you'll need to use the **Format** dialogue box. Go to **Preferences** in the **File** menu.



If you click on the home icon in the toolbar, you'll see more pages from the makers of *MacWeb*. You'll need a modem to see some, though.

Now your favourite Mac magazine is on-line.

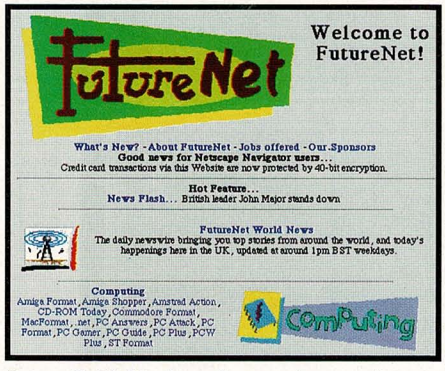
FutureNet

Future Publishing has extended MACFORMAT onto the Internet. This month you can discover 60 of the finest sites on the World Wide Web. Each site has a link on the MACFORMAT pages, so you can explore at your leisure with the click of a button.

All you need to connect to FutureNet is an Internet account, such as Demon or Cityscape, or a direct college connection. Then simply use your World Wide Web browser to connect. There are no hidden charges – it's completely free!

Point your World Wide Web browser at:

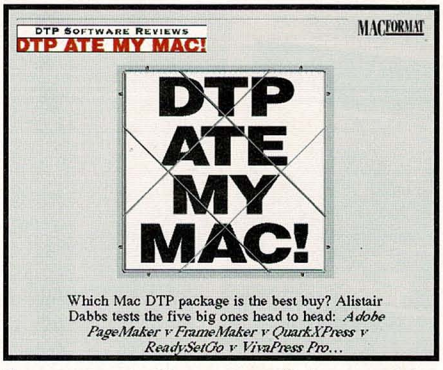
http://www.futurenet.co.uk


FutureNet
Welcome to FutureNet!
What's New? - About FutureNet - Jobs offered - Our Sponsors
Good news for Netscape Navigator users...
Credit card transactions via this Website are now protected by 40-bit encryption.
Hot Feature...
News Flash... British leader John Major stands down
FutureNet World News
The daily newswire bringing you top stories from around the world, and today's happenings here in the UK, updated at around 1pm BST weekdays.
Computing
Amiga Format, Amiga Shopper, Amstrad Action, CD-ROM Today, Commodore Format, MacFormat, .net, PC Answers, PC Attack, PC Format, PC Owner, PC Guide, PC Plus, PCW Plus, ST Format
Computing

Future Publishing's on-line service now has information from over 30 magazines.

FutureNet World News
your on-line daily newspaper
MACFORMAT
Britain's best-selling Macintosh magazine
Welcome to the home page of Macformat, Britain's best-selling Mac magazine! Whether you're a veteran or a novice, we'll help you get more out of your Macintosh, whatever you use it for!
Alex Summersby, Editor
Contact: macformat@futurenet.co.uk
Information available:
Features
Macformat News - all the latest goings on

You'll find the latest information on new issues, plus features and the latest news.


DTP SOFTWARE REVIEWS
DTP ATE MY MAC!
MACFORMAT
DTP ATE MY MAC!
Which Mac DTP package is the best buy? Alistair Dabbs tests the five big ones head to head: Adobe PageMaker v FrameMaker v QuarkXPress v ReadySetGo v VivaPress Pro...

Features on the MACFORMAT Web pages right now include a round-up of DTP programs.

To advertise on FutureNet, e-mail **Simon Richardson** at srichardson@futurenet.co.uk or call 01225 442244.

Hard Drives

Nobody Undersells Us !

Quantum 1 Gig AV

£369!

Internal Configuration

Products sold may differ from photograph.

Less then 40p per Megabyte !

External Drive only £399

- Top quality Quantum mechanisms as used by Apple
- Pre-formatted for plug'n play installation
- FREE active SCSI terminator and double shielded SCSI cable
- Premium quality casing
- Manufacturer's warranties of up to 5 years
- No risk 30 day money-back guarantee

FIREBALL SERIES

The Quantum Fireball™ 1080S AV sets a new standard of performance with a seek time of 9.5ms and an internal data transfer rate of up to 10.5 Mb per second. Advanced design eliminates the need for thermal recalibrations, critical for AV applications.

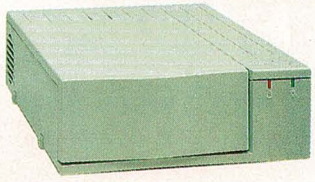
Major corporates, educational & government backed institutions are welcome to purchase with an official order.

We want your business ! We will match or beat any genuine quoted price.

540Mb Internal Drive **£149**

540Mb External Drive **£179**

Quantum



Special Offer !

DRIVE SPECIFICATIONS AND PRICES

Model	Formatted Capacity	Drive Height	Rotational Speed	Seek Time	MTBF hrs	Warranty	Internal	External
Quantum 340	316 Mb	1 in	4,500 rpm	10.8 ms	300,000	2 years	£129	£169
Quantum 540	516 Mb	1 in	4,500 rpm	10.8 ms	300,000	2 years	£149	£179
Quantum 850	836 Mb	1 in	4,500 rpm	10.8 ms	300,000	2 years	£209	£249
Quantum 1080 AV	1,039 Mb	1 in	5,400 rpm	9.5 ms	500,000	2 years	£369	£399
Quantum 2100 AV	2,004 Mb	1.5 in	5,400 rpm	9.5 ms	500,000	5 years	£599	£649

performance direct

Hard drive prices are volatile and may change without notice. Please call for latest pricing.

30 Day Money Back Guarantee

All credit cards are checked for fraudulent use

Access

Tel: 01784 477 477

AMERICAN EXPRESS

VISA

SWITCH

IN THE HARD DRIVE & MEMORY BUSINESS SINCE 1990 – OVER 15000 SATISFIED CUSTOMERS !

30 DAY MONEY BACK GUARANTEE – NEXT DAY DELIVERY – LONG WARRANTIES – FREE TECHNICAL SUPPORT

Performance Direct, Kingfisher House, High St, Egham, Surrey TW20 9HP. Fax: 01784 477 377.

Amex, Visa, Access & cleared cheques all accepted. E &OE. 30 day moneyback & all sales subject to Performance Direct's terms of sale. Offers available while stocks last. Prices exclude VAT & delivery.

Authorised Reseller

Apple Macintosh Computers

WE GUARANTEE THE LOWEST PRICES

All our Products are from Reliable UK Distributors Fully Guaranteed

ALL APPLE EQUIPMENT CARRY 12 MONTHS ON-SITE APPLECARE WARRANTY

POWER PC PERFORMAS

5200CD 8/500 Built-in 15" Multi -Scan, Design Keyboard and Claris works **1195**

5200 BUNDLES **1495**

5200CD PLUS 12/500, TV-in, Built-in 15" Multi- Scan, Design Keyboard , Claris works, 5 extra software packages and 8CD Titles

6200 8/500 CD **990**

6200 BUNDLES

6200 8/500,14" Performa display & Keyboard **& Claris Works 3.0** **1172**

6200 PLUS 8/500 CD

14" Trinitron, Design speakers & Keyboard **1220**

6200 PLUS 12/500 CDTV,

14" Triniton, Design speakers, Keyboard..... **1399**

6200 PLUS 12/500 CDTV,

15" Multi-Scan and Keyboard **1515**

6100/66 8/500CD **1235**
7100/80 8/700CD **1835**
8100/100 8/700 .....**2315**
8100/100 16/1GB/CDAV....**2915**
8100/110 16/2GB/CD.....**3300**

POWER MACINTOSH 8100 48/2GB CD **bundle** with IntelliColour Display/20E with Thunder/24GT. Extended Keyboard & Mouse. VideoVision 2.0, Professional Multimedia Toolkit, including Director, MacroModel, Three D, VideoFusion, Clipmedia II & Sound Edit II **10,879**

DATA CARE & SOLUTIONS

DTP BUNDLES

POWER MACINTOSH 6100

POWER MACINTOSH 6100 66 16/500 **bundle** with 17" Multi-Scan Monitor, Extended Keyboard & Mouse **1800**

POWER MACINTOSH 7100

POWER MACINTOSH 7100 80 16/700CD **bundle** with 17" Multi-Scan Monitor, Extended Keyboard & Mouse, ... **2695**

POWER MACINTOSH 7100 PRO

POWER MACINTOSH 7100 80 24/1GB CD AV **bundle** with 20" radius IntelliColor Display with PrecisionColor Pro 24X, Extended Keyboard & Mouse, QuarkXpress and Freehand **5525**

POWER MACINTOSH 8100 PRO

9350

POWER MACINTOSH 8100 100 40/1GB CD AV **bundle** with PressView 21-T with Thunder IVGX, Extended Keyboard & Mouse, QuarkXpress and Freehand

POWERBOOKS

PowerBook Specials

PowerBook 150 4/250 ..... £699
PowerBook 520 4/240 ..... £1135
PowerBook 520c 4/240 ..... £1775
PowerBook 520c 12/320 with Modem..... £2170

STOP PRESS to all POWERBOOK MANIA

POWER PC IN POWERBOOK

PowerPc will be seen in the PowerBook range this summer. There will be a PowerPC upgrade card suitable for the 500 series PowerBook.

FREE UPGRADE

when you buy any PowerBook COLOUR 500 series product a **FREE UPGRADE** when the card is available

PowerBook 540c 4/320 ..... £2656
PowerBook 540c 12/500 with Modem..... £3075

GSM Bundle

PowerBook 540 12/500 Modem with NOKIA GSM 2110 Handset, Cellular data Card, PowerBook PMCIA Module and GSM connection Kit £3950
PowerBook 540c 12/500 with modem, leather case and teleadapt kit £3150

PowerBook DUO

PowerBook Duo 280c 4/500 ..... £2045
PowerBook Duo 280c 12/500 with Modem . £2400

Many more **SOFTWARE** in stock - CALL!! - *at lowest ever price*

ADDITIONAL MEMORY AND HARD DRIVES
WE WILL BEAT ANY PRICE - *Call!!!*

MULTIMEDIA

VIDEOVISION STUDIO 2.0 3665

SledgeHammer 4GB Disk Array 2500
(Includes Raid Toolkit, Cables & 5yr Warranty)

PRINTERS

MONO Printers

StyleWriter 1200 ..... £199
HP DeskWriter 320 ..... £199
HP DeskWriter 320 with feeder..... £235

Colour Printers

Colour StyleWriter 2200..... £265
Colour StyleWriter 2400..... £345
HP DeskWriter 660C £345
HP DeskJet 850C £425

VISIONEER PAPERPORT - **£315** in stock!!

0181-840 9375

FAX: 0181 566 1903

SupraFAXModem™ 288 V34 28800bps ONLY **£199**

All sales subject to D C & S's terms of sale. E & OE. Offers available while stocks last. Prices in Pounds Sterling, exclude VAT & Delivery.

Anytime, anyplace...

Just think – even when you go away on holiday, you needn't do without your Mac! Michael Prochack and Alex Summersby take a look at how you can *not* get away from it all...

Hundreds of PowerBook and Newton programs on this month's CD-ROM!

Journalists and foreign correspondents use them. Business people who need to give presentations away from home base, or have to keep working even while they're on the move, couldn't do without them. Even normal people might find them handy when they're travelling or on holiday. According to that annoying TV advert, if you're a Rising Young Corporate Star a portable computer will compel all the Suits in the boardroom to swarm around you like bees around a particularly seductive pot of honey. But a PowerBook or Duo offers you even more: it's a Mac. To say it is merely a portable computer is rather like saying that a Harley Davidson is just another motorbike.

However, with a growing selection of competitively-priced PowerMacs to choose from, the question is: do you need one? PowerPC-chip-based PowerBooks are due within a matter of months but they're not here just yet, so the current top-of-the-range PowerBook offers power comparable with a Performa 630 at somethng around twice the price. You're paying a premium for the portability, but the cost is not outrageous as portable computers go – and again, it's not just a portable, it's a Mac, offering just about all that desktop Macs offer plus the added ability to do it in the road. If you're thinking of upgrading, or you've just won the National Lottery and fancy buying another Mac, or being mobile is vital for you, then a PowerBook or Duo may be just up your street, round the corner and through the Channel Tunnel. Just as mobile phones are no longer only for yuppies, PowerBooks are for anyone who's going places.

PowerBooks are for anyone who's going places.

The fundamental issues in portable computing include weight, size, ease of use and quality of display. PowerBooks and Duos come up to the mark in all these crucial respects, and more. Unlike PC-compatible portables, they arrive fully configured with a superb full-page-width display, a nearly standard size keyboard, built-in trackball or trackpad, built-in networking capability, sound-input/output ports, speaker and a special SCSI port for connecting standard Macintosh peripherals such as hard drives, printers, external monitors and even CD-ROM drives. Like desktop Macs, they have plenty of scope for add-on cards and connectability. The only limitation, which won't bother most mobile users, is the lack of a full NuBus expansion slot, the current desktop Mac standard. PowerBooks have a PDS (Processor Direct Slot) expansion slot, as found in Macintosh LCs, but the 500 series can take the more lightweight and compact PCMCIA format cards via an optional adaptor – and PCMCIA choices include everything from modem cards to mini-SyQuests. (See page 54 for more details.)

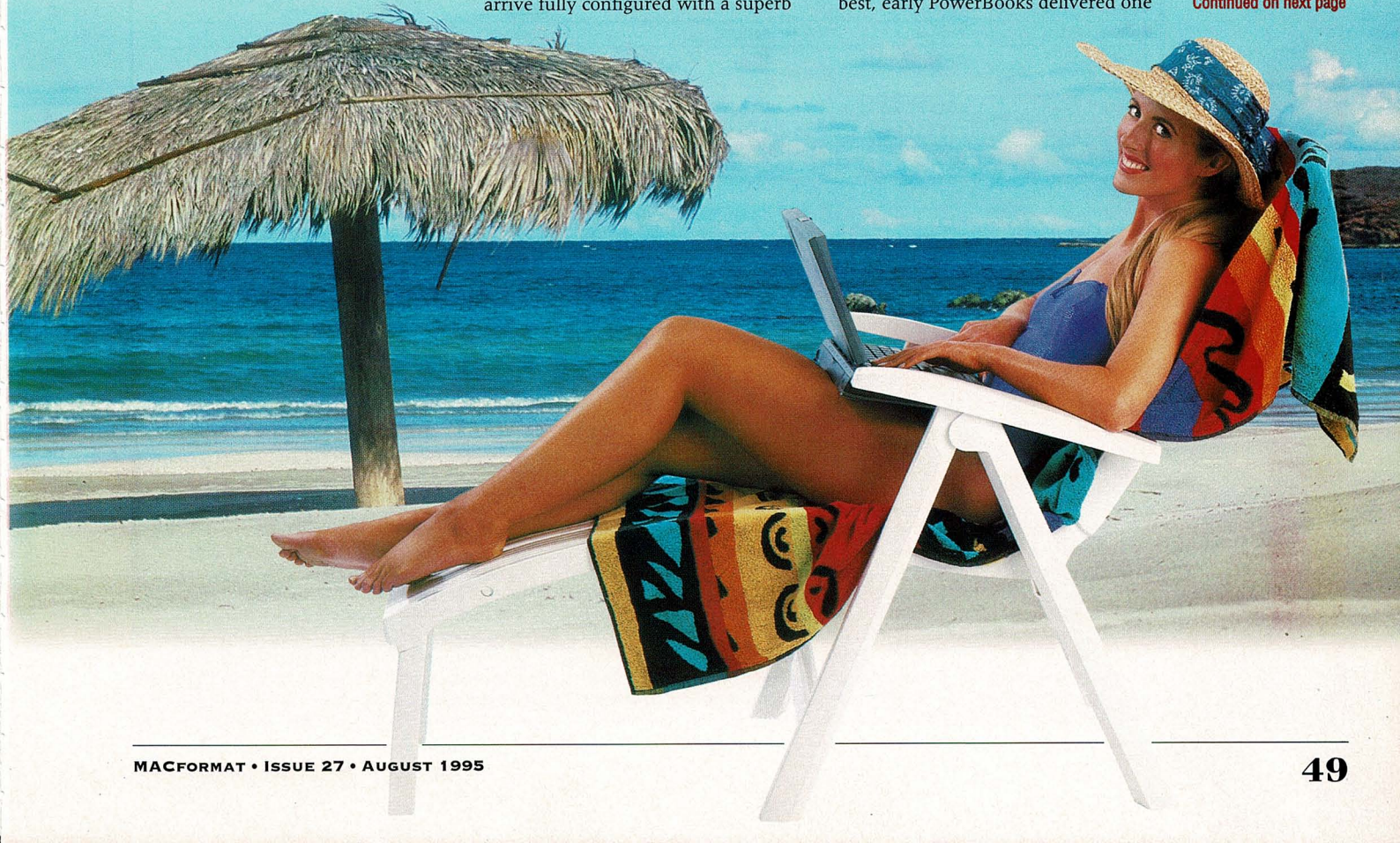
Batteries supplied

While PowerBooks and Duos are born to run, how far they get is still dictated by available battery technology. At best, early PowerBooks delivered one

Continued on next page

ON THE ROAD

Michael Prochak is the author of a new book on portable computing entitled *On the Road*, to be published soon by Addison Wesley (01734 794000). The subtitle is *Pervasive Portable Computing with PowerBooks, PDAs and Beyond...* Just so you make sure you get the right book.



to four hours per charge, depending on how they were used. The new 500 series PowerBooks do a lot better, with the option of two batteries providing nearly six hours of run-time – ample for all but the most serious road warrior types. (They can do this because they come with two bays. One is for the battery supplied; the other has the PDS slot, which can take either an expansion card or a second battery – but you do have to buy one as extra.) On top of this, all current PowerBooks and Duos (except for the ageing PowerBook 150) take full advantage of new battery technologies that provide more power without an increase in weight by using NiMH (nickel-metal-hydride) 'intelligent' batteries in place of the less efficient NiCad (nickel-cadmium) technology used by the first generation.

NiCad is still a better choice, however, if you plan to use your PowerBook in extremely hot or cold conditions. Apart from this, all the PowerBooks and Newtons are built to take the knocks. During the development stage they are test-dropped on a variety of surfaces, and Apple have loads of testimonials from users who have dropped them onto concrete or backed over them with their cars and, as the old advert used to say, they're still ticking. In normal reality, however, dropping them is only asking for trouble. As well as the casing, internal components such as the hard drive can be particularly vulnerable to shock and any number of connections can be dislodged during free-fall. A good case or sturdy bag may lessen this particular risk, but it's still probably a good idea to stick to reasonably civilised surroundings such as trains, planes, automobiles or hotel rooms.

So what do these machines have to offer? Let's get going and find out...!

NEWTON ALIAS

Newton, Apple's handheld computer, is also sold under the name of MessagePad, and is also called a Personal Digital Assistant (PDA). See page 56 for more.

KEEP TALKING

The original PowerBook 100 had no floppy disk drive, so transferring data between it and other machines was a bit of a problem. Not so today: all current PowerBooks have floppy drives – though Duos don't have one built-in, only in the Duo Dock (but not mini-docks). You can also buy external floppy drives to plug into PowerBooks and Duos, or use the other solutions that worked for 100s:

- Connect the PowerBook and desktop Macs via a standard printer cable running between their printer ports, creating the simplest form of network.
- Plug your PowerBook or Duo into your existing LocalTalk or EtherNet network.

POWERBOOK FEATURES AT A GLANCE

WHAT ABOUT...

This table covers Apple's current official PowerBook and Duo range. You'll see other models in adverts, such as the 520 and Duo 280 mono versions, both recently discontinued, or even older models. There are some real bargains to be had, but do check exactly what you'll be getting for your money.

	PowerBook 150	PowerBook 520c	PowerBook 540c	Duo 280c
Processor and speed	68030 / 33MHz	68L040 / 25MHz	68L040 / 33MHz	68L040 / 33MHz
RAM	4Mb, expandable to 40Mb	4Mb, expandable to 36Mb	4Mb, expandable to 36Mb	4Mb, expandable to 40Mb
Hard Disk	120Mb	160Mb / 320Mb	320Mb / 500Mb	320Mb (or now 500Mb)
ExpansionSlots	2 modem/RAM	3 modem/RAM/PDS/PCMCIA	3 modem/RAM/PDS/PCMCIA	2 modem/RAM
Display	passive matrix LCD	passive matrix LCD	active matrix LCD	active matrix LCD
Display Colours	4 greys	256 colours	256/thousands	256/thousands
Battery	Nickel Cadmium	Nickel Metal Hydride	Nickel Metal Hydride	Nickel Metal Hydride
BatteryLife	2-4 hours	2-4 hours	3-6 hours (uisng 2 batteries)	2-4 hours
Ports	serial, SCSI	serial, ADB, SCSI, stereo sound in/out, monitor, EtherNet	serial, ADB, SCSI, stereo sound in/out, monitor, EtherNet	serial, modem, dock
Networking	LocalTalk	LocalTalk, EtherNet	LocalTalk, EtherNet	LocalTalk
Docking	none	none	none	DuoDockPlus, MiniDock, third-party docks
Upgrades (forthcoming)	none	PowerPC	PowerPC	PowerPC
Pointing Device	trackball	trackpad	trackpad	trackball
Video Out	none	supports 256 colours on 17-inch and smaller Apple monitors, some VGA/SVGA monitos		via dock
Weight	5.5lbs / 2.5kg	6.4lbs / 2.9kg	7.3lbs / 3.4kg	4.8lbs / 2.2kg
Dimensions (inches)	2.25 x 11.25 x 9.3	2.3 x 11.5 x 9.7	2.3 x 11.5 x 9.7	1.5 x 10.9 x 8.5
Base Price (approx)	£935	£2,225	£3,500	£2,625

POWERBOOK SCREENS: THE FULL PICTURE

All portables use LCD or liquid crystal display screens rather than cathode ray tubes like desktop monitors. Because liquid crystals do not emit light, a backlight system is used in all PowerBooks. Earlier colour PowerBooks used two bulbs; newer ones like the 520c use a single bulb and, as a result, consume less power, which in turn means longer battery life. The other significant difference is that older PowerBooks had 'passive matrix' screens and the newer models have 'active matrix'. The technical difference, in a nutshell, is that the latter have a separate transistor for *every single pixel* (picture element) on the screen, which means greater precision and faster screen update – but it also means active matrix screens are quite a lot more expensive and consume that little bit more power, so your battery drains more quickly.

In general, however, active matrix screens provide a crisper, clearer image – more or less on a par with normal desktop monitors in terms of brightness, contrast, and colour saturation. They also avoid almost all of the problems associated with passive matrix screens, especially *submarining* and *ghosting*.

'Submarining' means that your cursor disappears when you move it too quickly for the screen re-draw to keep up. 'Ghosting' is a faint double-image of a window or other object. You can often minimise the effect of ghosting by fiddling with the contrast settings – and on the whole, passive matrix screens take more setting-up each time, to deal with different lighting conditions and viewing angles. Glare can be more of a problem with them as well.

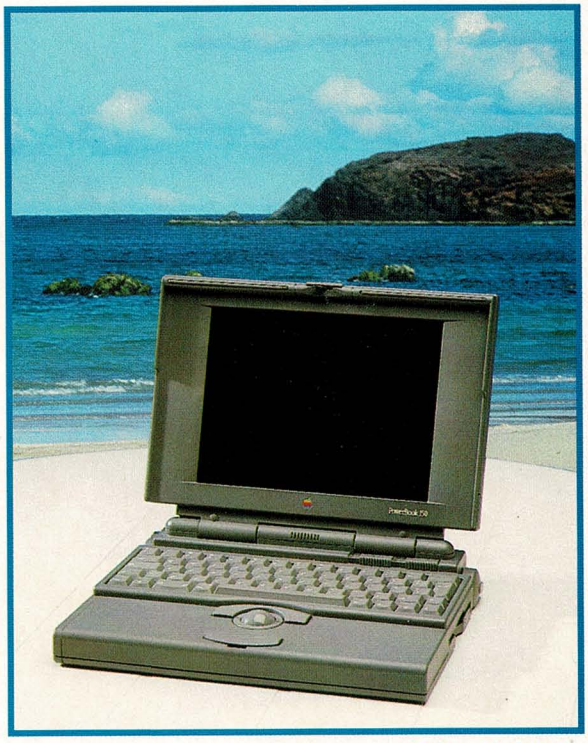
However, newer passive matrix screens, such as that on the 520c, use an ingenious system called 'dual scan', which is more responsive than a single-scan display because the screen is electrically divided into upper and lower regions, cutting in half the distance each scan must cover, meaning better screen update and clearer pictures. Dual-scan displays also allow for higher contrast settings, enhancing clarity while still drawing considerably less power. So don't dismiss passive matrix screens: they are still quite good for most mobile computing applications, and they are considerably cheaper.

ROAD-TIPS...

- Do not move a PowerBook when you can hear its hard disk spinning. Apple also suggest that you don't move a PowerBook when you put it to sleep until the screen is blank.
- Don't touch or poke the PowerBook screen with any sharp or pointed objects. If you're using a MessagePad, use only the pen provided. Biros and felt tips tend to leave extra marks on the screen.
- Don't leave your PowerBook or MessagePad in direct sunlight.
- When taking a PowerBook or MessagePad from places where there are temperature extremes, treat them like a good acoustic guitar and let them warm up or cool down to room temperature before using.
- Changes in humidity can cause problems similar to those mentioned regarding temperature. If you notice condensation on the outside of your PowerBook or MessagePad, you can bet there might be condensation inside as well. Don't use either until condensation has had a chance to evaporate.
- Avoid dropping PowerBooks or MessagePads from any great height. The same goes for puncturing, disassembling or mutilating. Screens are made of tempered glass designed to survive mishaps, but don't push your luck. Also, hard drives and other internal components aren't that happy when shaken or stirred and even the high-impact plastic cases will crack or break, if you try hard enough.
- Keep your PowerBook or MessagePad in as clean an environment as possible. Okay, the road can get pretty dusty out there, but try to keep it down to a reasonable level. Neither likes food and drink in or around it, so keep that in mind when you stop off for that damn fine black coffee and slice of cherry pie.
- PowerBooks and MessagePads should be kept clean, but don't use any solvent-based cleaner. A soft damp cloth is good but never put water directly on either. In Apple's Cork assembly plant I noticed that all PowerBooks and components are cleaned with baby-wipes. A packet of these is a particularly useful addition to any travel-bag.
- Never use a PowerBook or MessagePad in or near water. (Clue: they're electric, dummy...) Underwater is right out.
- Always transport batteries inside the computer or in some sort of protective case. Recharge batteries only as described in the manual and in well ventilated areas. Also, don't leave batteries in extreme heat and don't allow metal objects to touch battery terminals. If you do, they could catch fire or explode.

PowerBook 150

The PowerBook 150 is currently Apple's most affordable PowerBook and refines the original ergonomic design of the original PowerBook 100 by adding a larger screen and trimming the weight, though it features the same basic design as most of its floppy-drive-equipped 100-series predecessors. However, the 150 is noticeably lighter at 5.5 pounds, which is only about one pound heavier than the 200-series Duos. Apple's engineers pulled this off by using lighter components and reducing ports to a bare minimum. All you get is a power switch, one serial port, an HDI-30 SCSI port (for connecting devices like hard drives and CD drives) and a slot for a 100-series modem stuck on the unit's coverless back panel. Unfortunately, expansion options are extremely limited.



The PowerBook 150 has a trackball, not a trackpad like the newer 500 series, but it's still an appealing machine.

The 150 is the last of its lineage to be powered by a 33MHz 68030 chip (without a FPU or floating-point unit to speed up computations), so performance is roughly similar to a Performa 460, which uses the same processor. The 9.5-inch backlit passive-matrix display offers four levels of grey and an expanded 640 x 480 pixel resolution. Several 100-series PowerBooks featured physically slightly larger screens but with lower resolutions, but the full 640 x 480 resolution makes the 150's screen seem bigger. Apple shaved the cost of the 150 by opting for this sort of display, which is fine for most every-day road chores. However, be aware that you will experience cursor 'submarining' if you move round the screen too quickly – the screen can't update as fast as a desktop Mac's, so the cursor can just vanish as you move it.

The 150 reflects Apple's expanding Performa philosophy.

Unlike most of the rest of the PowerBook line, the 150 can't be used with an external monitor. It is also the first Apple product available with an IDE (Integrated Drive Electronics) internal hard drive. The drive's performance is good, although it's strangely noisier than most other PowerBook drives, making the unit sound a bit tinny. The 150 comes with an original PowerBook 140/170 NiCad battery and gets between two and four hours of use from one single charge. In addition, an internal lithium-ion battery, a first of its kind in the 100 series, lets you swap batteries while the computer is asleep without losing your data. The EverWatch battery-saver technology is also standard.

You can add an optional fax/modem and all previous 100-series accessories should work with the 150, except memory boards. For some weird reason, the 150 uses Duo memory and supports up to 40Mb of RAM.

The 150 reflects Apple's expanding Performa philosophy and comes bundled with *ClarisWorks* and the PowerBook Mobility Bundle, which includes a variety of System enhancements for working with MS-DOS disks and files, communications, power and other information management. It is ostensibly aimed at students and price-sensitive first-time notebook users.

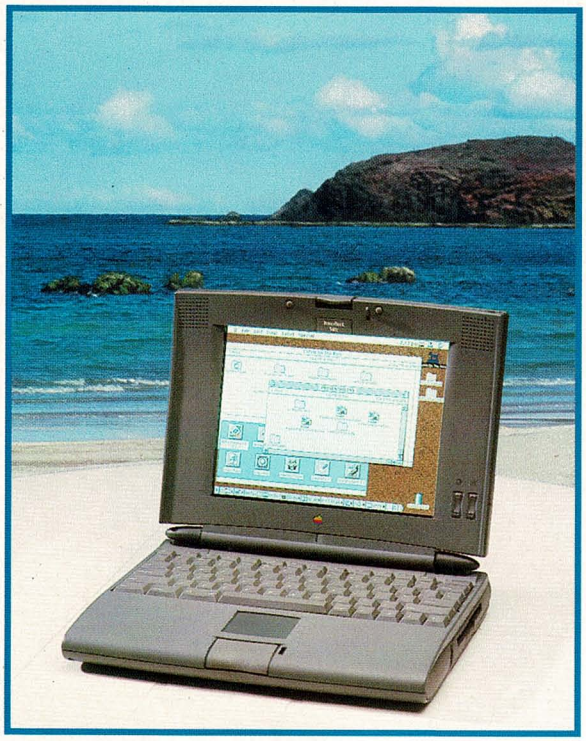
CHIPS AHOY!

The 150 is the last Macintosh built around the Motorola 68030 chip, first introduced into the Apple line way back in September 1988 in the Mac IIx. The 030 went on to star in fine machines such as the LCII, LCIII and Performa versions.

Like a caravan, the 150 sacrifices a few conveniences for the sake of portability: on its rather spartan back there's only a power-in port, 25-pin SCSI port and serial port, plus a slot for an optional modem.

Continued on next page

PowerBook 520c & 540c



Opinion is divided in the MACFORMAT office about trackpad, like the one in the PowerBook 500 series. Some of us reckon it's the most intuitive way of directing a cursor, almost like just pointing...

Physically, the 500 series look curvier than the original range of PowerBooks and are designed to be more comfortable and more personal – and to give the impression that they're smaller than they actually are. Both models are made of a thin-wall glass-filled polycarbonate material, but neither is noticeably lighter than previous all-in-one PowerBooks and they normally end up weighing around 7lbs.

However, there are still plenty of pluses to ensure that this series will run for quite some time. In addition to a new chassis, the floppy-equipped notebooks come with excellent screens. The 520 (now officially dropped from the product line, but still available here and there) offers a passive matrix screen capable of displaying 16 greys. The 520c has a 16-bit 'dual-scan' passive-matrix colour screen, giving 256 colours. The 540c boasts a superb 16-bit active-matrix colour display, producing thousands of colours.

The 520c comes equipped with a 25MHz 68LC040 (the same as the Performa 475), while the 540c sports a 33MHz 68LC040 processor (like the Performa 630). Unlike previous PowerBooks, the 500 series processors are mounted on removable daughtercards, making it straightforward and less expensive to replace the CPU with a PowerPC 603e processor when they become available later this year.

Both of the current 500 series machines have two removable expansion bays. The first bay can hold only a single NiMH battery pack. The second can also contain a power pack, doubling the PowerBook's battery life, but this will boost the machine's overall weight to well over 7lbs. Better still, the second bay also has an LC-style PDS (processor direct slot) expansion slot, which can be used to hook up a number of optional modules, such as a cellular modem, wireless LAN transceiver, 24-bit display card or even a PCMCIA card receptacle. This makes the 520c and 540c the only PowerBooks able to use PCMCIA cards.

The 540c is the ideal mobile multimedia workstation.

The 520c currently passes as a mid-range PowerBook and provides roughly the same performance as a Performa 475. Although colour was the most requested new PowerBook feature when the 165c shipped, its sluggish single-scan display and poor viewing angle resulted in less than impressive sales. The dual-scan, passive-matrix display in the 520c changes that with only a modest increase in cost: it enables you to set higher contrast settings, enhancing clarity, and it has only a single bulb for its backlighting, so it draws half the power of its predecessors.

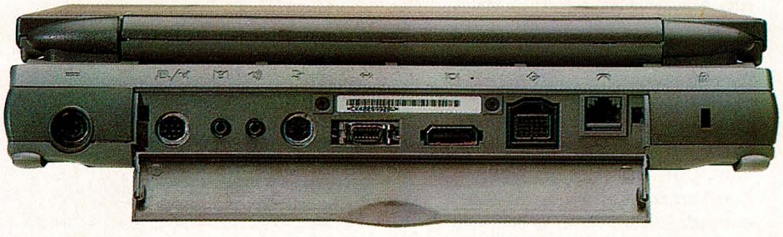
The 520c and 540c are the first lot of PowerBooks to offer full-size Macintosh keyboards with the same spacing as a desktop keyboard, and even an extra row of smaller keys along the top, including Escape and Function keys. A trackpad replaces the traditional trackball. It is neither touch nor heat-sensitive but instead uses a velocity-sensing algorithm to measure how fast you move a finger across the small touch-sensitive 'arena' and adjusts tracking speed accordingly. The trackpad uses less power than a trackball and has no moving parts. After using it for a while, you actually begin to wonder why anyone used a mouse or trackball in the first place.

There's also a clever tape-measure-like control panel display providing battery status information plus quick access to common PowerBook functions. This control strip runs on all PowerBooks but the twin-battery indicators and remaining-battery life indicators will only work on the 500 series. Both models continue to support options familiar to all-in-one users such as space for an internal modem, a SCSI interface, serial port, ADB (Apple Desktop Bus) port for adding a standard Mac keyboard or mouse, and external video-out so you can add a 'proper' monitor if you want one.

The 540c is currently both the best and most expensive all-in-one PowerBook, boasting what is the best colour display on any popular laptop. This active-matrix screen can be switched between 256 colours at 640 x 480 pixels and 32,000 colours at a resolution of 640 x 400. The 540c's performance is similar to that of a Performa 630, and you get 16-bit CD-quality stereo sound output and built-in speakers, making it the ideal mobile multimedia workstation or presentation machine.

While all previous PowerBooks were capable of replacing certain desktop systems, the 500 series is the first that allows you to do it all with next to no compromises. If you've the mind to, you can happily buy a 500 for everything rather than some desktop configuration for home or work and another separate system for the road.

The 540c's battery in its slot. Another slot round the other side also takes PDS expansion cards.



The PowerBook 540c is a serious, if pricey, alternative to a desktop Mac. It even offers you all the ports that a desktop Mac would, the only difference being that the SCSI port is a non-standard 25-pin type.

PowerBook Duo 280c

PowerBook Duos can be classed as 'sub-notebooks', which makes them smaller and lighter for enhanced portability. The trade-off is that they have even fewer ports than a 150 and no expansion slots built-in, but through various 'docking' technologies Duos can offer all the functionality of a complete desktop system, so you only need to buy one computer for both desktop and on-road use.

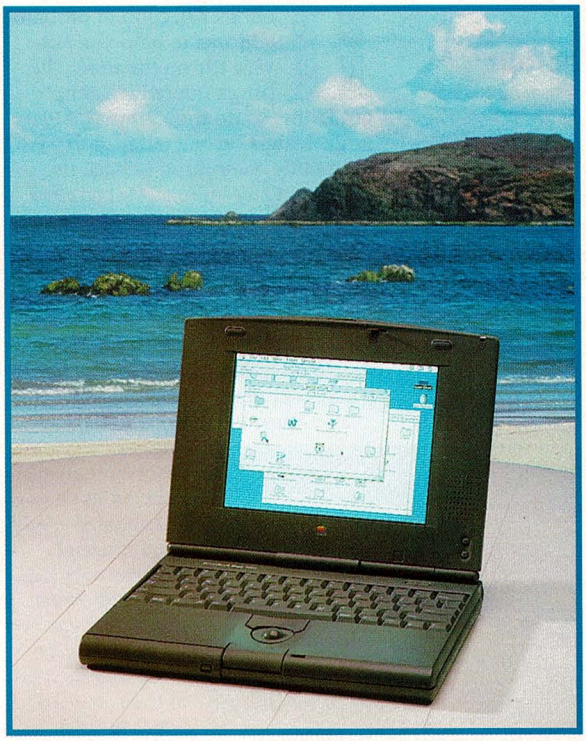
It works like this. When you get back to base, you just close up the Duo and slot it into the dock, which gives you the use of ports just like a desktop Mac, including one for plugging in a full-size monitor – which you now need, because the Duo is closed up. But the full-size dock also has a desktop-Mac-like case on which you can sit the biggest monitor you can get hold of. The dock also has some electronics – notably a NuBus expansion slot and floppy drive – but the Duo itself is the processing guts of the set-up.

The black-and-white Duo 280 – offering an active-matrix, 16-greys display – is now officially discontinued, but again you might find some still on the shelves. Though outwardly identical to previous models, the colour 280c is the sole survivor of the range. It has the same 68LC040 processor as the all-in-one 500 series, with an active-matrix colour display comparable to the 540c's. The 280c only offers 8-bit sound as opposed to the hi-fi 16-bit stereo you get with the 500s but, at just 4.8lbs in weight, it's a lot less hassle to lug around on the road and would slip nicely into any number of shoulder-bags or briefcases.

All missing features can be added to the 280c by docking into a desktop or more mobile mini-dock. You can also transfer files to and from the Duo through its LocalTalk ports, using the serial connection or via an external floppy drive. As with previous Duos, the 280c can be made to behave like an external hard disk when attached to your Mac in 'SCSIdisk mode'.

Apple's new Type III NiMH battery ships as standard with the 280c and works with any Duo. It's available as a replacement battery and comes with supporting software. In terms of what that will do to your mileage, remember that the Type III battery has 15% more capacity than a Type II battery and that a Type II battery offers 50% more capacity than a Type I battery.

While the 280c is the only Duo officially in the product line, Apple is offering an upgrade to convert any existing Duo into a 280c by changing the motherboard and screen, and there are also plans to offer a PowerPC upgrade as and when possible.



Stripped down for the road, the Duo 280c has the ability to form the core of a 'real' setup...

In the Dock...

The Duo 280c includes built-in networking and modem ports, but all other ports such as SCSI, ADB, video-out and floppy-drive are available via a variety of 'docks' made by Apple and other manufacturers. Small docking units provided by Apple and companies such as Lapis and Newer provide EtherNet network connections, SCSI and video-output, while larger 'base' units like Apple's DuoDock II incorporate a full complement of floppy and hard drives, networking ports and support for keyboards and monitors. When a Duo is inserted into one of these docking bays, it uses Apple's proprietary docking technology called PowerLatch to become the heart of a full-function desktop system.

The DuoDock II is being replaced with a new version called the DuoDock Plus. If you have an earlier model, it's worth noting that although similarly priced, the 'improved' Duo Dock Plus comes without the FPU and the cache which did much to ramp up the overall system's performance.

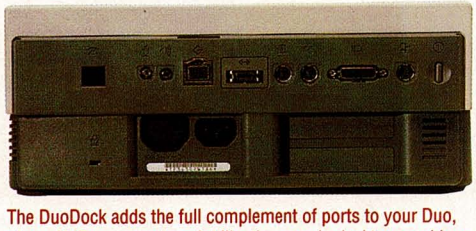
That apart, a Duo-plus-Dock combination is ideal for someone who wants the best of both worlds. Plug it into a Dock and it's virtually a desktop Performa 630; take it out and it's a lean, mean, moving machine that's just born to be wild. The only catch is the bill: £2,600 for the Duo 280c plus another £660 for Apple's Duo Dock, though you can get mini-docks like Asante's Netdock for under £240 – a total of around £3,000 or so, when a mid-range Performa 630 will set you back no more than half that much.

Then again, it's a bit hard to look cool walking into that boardroom carrying a 630...

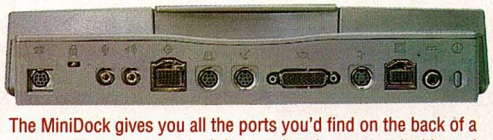
Continued on next page

Transforming a Duo into a desktop Mac could be as simple as plugging it into Apple's MiniDock...

Apple's DuoDock looks almost like a Mac, and that's almost what it is: plug a Duo into it and you *have* a desktop Mac!



The DuoDock adds the full complement of ports to your Duo, plus a NuBus expansion slot like the ones in desktop machines.



The MiniDock gives you all the ports you'd find on the back of a desktop Mac – but you don't have to lug them around with you!

Docks

Apple's own PowerBook DuoDock II is around £740, the MiniDock £275. Contact Apple UK on 0800 127753. Apple also produce a floppy adaptor for £81 and an external drive at £95. The Lapis MiniDocks & SCSI Dock (from £75) are low-cost SCSI adaptors for Duos – contact Computers Unlimited on 0181 200 8282. A similar line, as well as a range of EtherNet docks, is made by Newer Technology and available in the UK from Principal (01706 831831). Principal also distribute the RasterOps DuoMate series of docks, starting at about £520. Budget alternatives include the Asante Netdock mini-dock (£240 from Frontline, 01256 463334), while Radius make the top-end Etherdock & Powerlink Presenter for a mere £1,900 or so (contact Computers Unlimited for more details).

Mobile goodies & extras

PCMCIA
A standard developed by the Personal Computer Memory Card International Association (of course!). You can plug PCMCIA cards in a 500 series PowerBook using Apple's PowerBook PCMCIA Expansion Module, which fits in the 500's second battery bay.

Here's a selection of portable add-ons to help you survive life on the road. The prices quoted are simply a guideline, so do shop around. Most large dealers carry a range of extras for mobile computing – check the adverts in any issue of MACFORMAT.

Batteries, PSUs & Adapators

If you're a serious digital driver, you can never have too many spare batteries – two is a minimum; if you've got the luggage space, take more. It can be a long way between wall sockets.

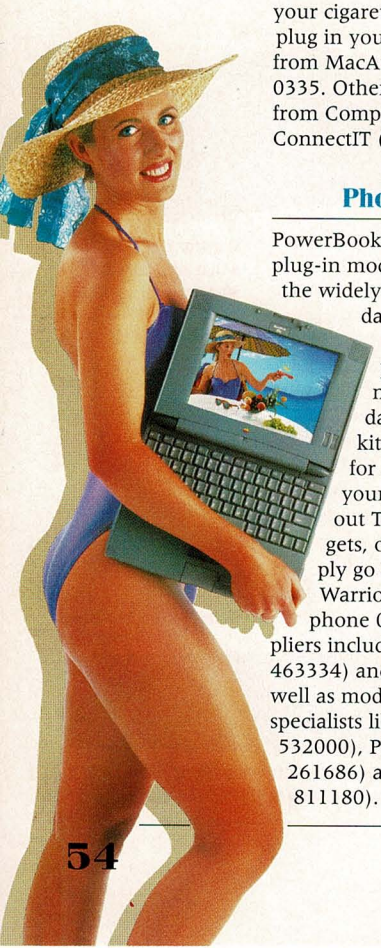
The Apple PowerBook Battery is around £40 from MacWarehouse, 0800 445000. Lind offer a particularly good range of alternative D Cell Packs and Power Packs, and you can usually get a lot more mileage out of their internal batteries than Apple's. Contact Computers Unlimited, 0181 200 8282. The VST ThinPack is an external portable battery which extends PowerBook mileage by several hours and is highly recommended. It's £169.99 from TeleAdapt – for more details call them on 0181 421 4444.

The Lind SuperCharger is one of a broad range including 'conditioners' – so if your PowerBook is in poor condition...

If you're in a car, the Power Traveller DC means you can chuck away your cigarette lighter and use this to plug in your PowerBook instead. £60 from MacAccessory Centre, 0191 295 0335. Other car adaptors are available from Computers Unlimited or ConnectIT (01525 240008).

Phones & Modems

PowerBooks can accept a range of plug-in modem cards (500s can use the widely-available PCMCIA standard), or you can go for any of the battery-powered pocket-size modems on the market. Then there's a dazzling array of connection kits, interfaces and adaptors for foreign phone systems. For your connection needs, check out TeleAdapt's range of gadgets, or if you can afford it, simply go for a complete 'Road-Warrior' system. For more details phone 0181 421 444. Other suppliers include Frontline (01256 463334) and Computers Unlimited, as well as modem and communications specialists like Pace Micro (01274 532000), Psion Dacom (01908 261686) and US Robotics (01753 811180).



Extras for PowerBooks include batteries, connectors and adaptors for all conceivable purposes.

Really moving? With a Lind Auto Adaptor you can run a PowerBook off your car cigarette lighter.

Bags & carrycases

The PowerBook Wetsuit carrycase is £60 from Inova, 01923 854701. The Notebook Traveler cases from MacAccessory Centre include the Deluxe Brief, a briefcase (what else?) for your PowerBook and accessories, with room for a power supply, floppy disk drive and extra battery. For other bags and carrying cases, call MacWarehouse or MacLine (0181 401 1111).

Utilities

■ *PowerPrint.* This is a combination cable plus several software drivers that enables you to print on just about any printer with a parallel port. Useful if you're travelling in hostile PC environments. Contact Academy Software on 0181 656 9560.

■ *Connectix PowerBook Utilities 2.0.* Includes tools for synchronisation of files and saving battery power. £79.95 from Computers Unlimited.

■ *PowerBook File Assistant 1.0.* All the usual suspects brought to you in this instance by Apple. Reasonably good value for money. £50. For your nearest dealer call Apple UK 0800 127753.

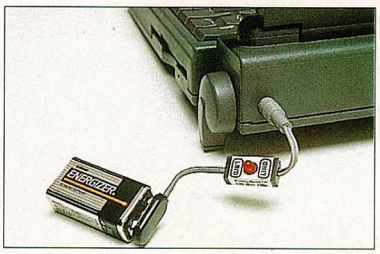
■ *RAM Doubler.* Does exactly what it says: it doubles your RAM without resorting to the power-drain over-heads of virtual memory. £69.95 from Computers Unlimited.

■ *DiskDoubler.* Does for hard disks what *RAM Doubler* does for memory. £59 from Computers Unlimited.

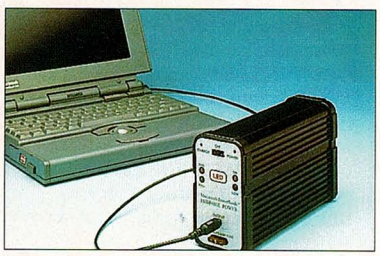
■ *WizTools For PowerBooks.* Handy for older PowerBooks in particular; many of these features are standard on newer PowerBooks. £69 from Softline 0181 401 1234.

CD-ROM

The most portable CD option is Apple's PowerCD. It's not state-of-the-art, but it plays audio CDs as well and works on battery power. £329. For more details, contact Apple UK.



The Lind Memory Saver could be invaluable when you have to change your PowerBook's battery.



The Lind range is shown here courtesy of Computers Unlimited. Shop around for other makes.

GET ON-LINE TO

Internet

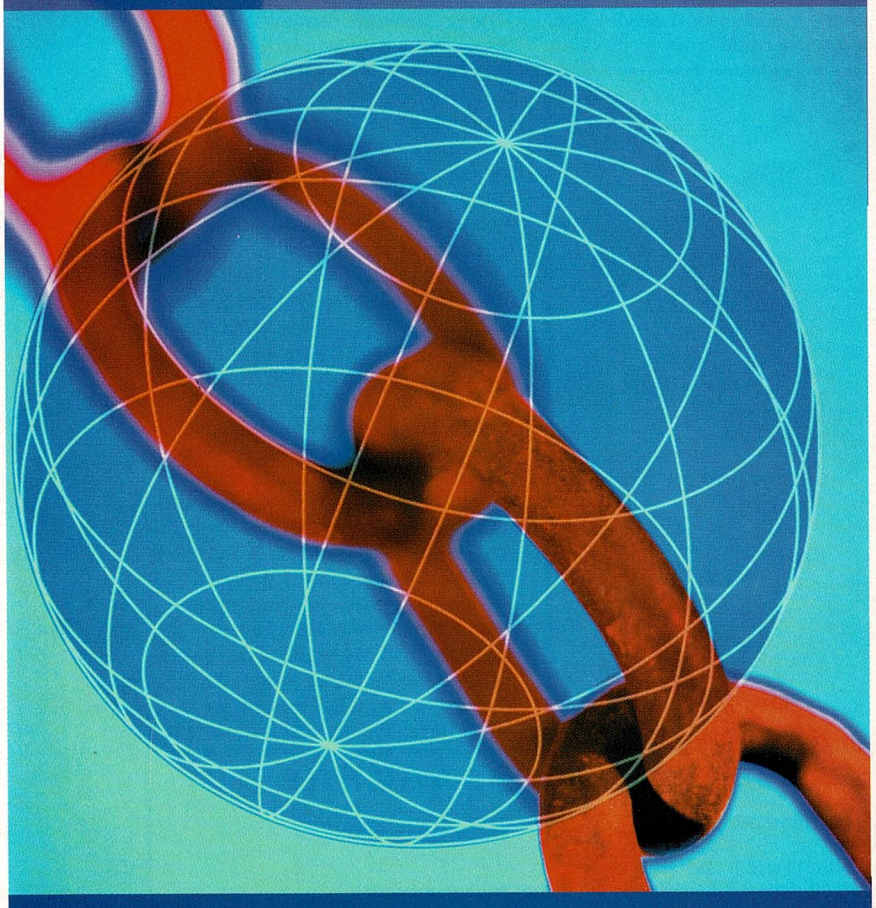
WITH

Direct Connection

THE ESSENTIAL CONNECTION

Now its easy to connect to the biggest network in the world, with Direct Connection, giving you access to a range of databases, the biggest bulletin board in the world, and thousands of **free** programs.

- Full Internet Connectivity
- Global Electronic Mail
- Usenet Discussion Groups
- 1,000's of Databases
- 24hr Computer Newswire
- TCP/IP & UUCP available
- Menu or "shell" access
- Widest range of dial-up Internet Services



Direct Connection

Free Demonstration (modem)

0181 317 2222

Helpdesk (voice) 0181 317 0100

The Direct Connection
FREEPOST (LON 1107)
London SE18 3BR

MACINTOSH

DOUBLE & QUAD SPEED CD-ROMS

DOUBLE SPEED EXTERNAL

- Direct SCSI-2 interface
- 300KB/s data transfer
- 250ms access time
- SCSI through port
- Tray loading system
- MultiSession facilities
- Switchable 110v or 240v
- Play Photo and audio CD's
- Large 256K buffer memory for smooth data transfer
- Comes with SCSI cable and software

x2

£159

QUAD SPEED EXTERNAL

Same features as above and more...

- 600KB/s data transfer
- 200ms access time
- Data readout begins before disc station stabilises

x4

£229

POWER COMPUTING LTD
44a/b Stanley St. Bedford MK41 7RW
Tel **01234 273000** Fax **01234 352207**

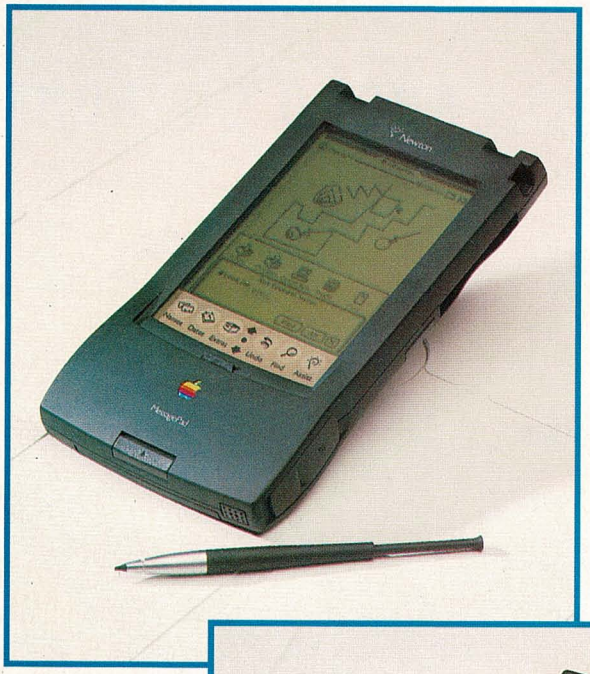
TELEPHONE

01234 273000

Access VISA

Prices exclude VAT & delivery, all trademarks acknowledged

The Newton 110 & 120



A Newton can be your Personal Digital Assistant – a plastic pal that fits in your pocket!

PowerBooks are brilliant for computing on the move, but let's face it: they still won't fit in your pocket. Apple's Newton will, or very nearly. The catch is that it isn't actually a Mac – but then it isn't quite a computer either. You can connect it to your Mac to transfer data back and forth if you want to, but the Newton is made for more than carrying data around: it's a Personal Digital Assistant.

When Apple came up with the concept of the PDA, it sounded like it would revolutionise the way you worked, enabling you to enter information in an unstructured manner and then organising it for you, while providing instant access to all data at any time. Unlike so-called 'notebook' computers, it really was notebook size, and you really could write on it with a stylus. It would recognise your handwriting, so the theory went, and not only store your notes permanently but also sort or search them, as well as run more computer-like programs – text editors, spreadsheets, appointment managers and much more. Not only would it out-Filofax your Filofax, but it could fax too – that is, you could connect a modem to it, and even a printer.

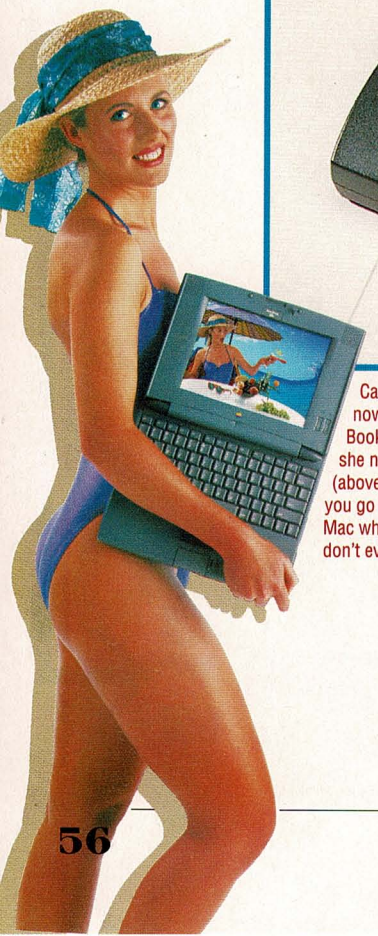
WIN A NEWTON 110 – SEE PAGE 146

The only problem was, it simply didn't deliver.

The original Newton suffered from four fatal flaws: limited memory and input options, poor battery life, and an unacceptable number of bugs, especially in the handwriting recognition. Apple have been busy though, and the current models are a vast improvement. If you have poor handwriting, Newton's recognition still isn't magic, but a new icon in the Notepad application now enables you to toggle both letter-by-letter and numbers-only handwriting recognition on or off as you write each word. When the Newton fails to recognise a word, it gives you the option to re-attempt it letter by letter. The best bit is the implementation of deferred handwriting recognition – you don't have to wait for it to catch up with you, just keep writing and it will attempt to interpret your text when you've finished.

Currently there are two Newton MessagePads: the 110 and the 120. They're virtually identical in appearance and specs, except that the 120 boasts 2Mb of RAM and improved screen clarity. With built-in GSM software, users can now transmit faxes, send and receive e-mail and access online information services such as CompuServe wirelessly from remote locations practically any time.

The original MessagePad was supposed to have a lid, and then didn't. The 110 had a lid but loads of users complained... so the 120 features a re-



Caroline must be getting tired by now – she's been lugging that PowerBook around for simply *pages*! What she needs is a Newton 110 (top) or 120 (above). You can take notes with it as you go and transfer them to your desktop Mac when you get back home – and you don't even need to be able to type!

NEWTON MESSAGEPAD

Processor: 20MHz ARM 610 RISC processor, 7 VAX MIPS
ROM: 4Mb
RAM: 1Mb (110 model) / 2Mb (120 model)
Screen: LCD with resistive tablet (320 x 240, 85dpi). Protective screen lid.
Input device: Round telescopic pen (others available as options)
Expansion: PCMCIA 2.0 expansion slot
Ports: LocalTalk and Standard 8-pin RS-232/422 serial port
Communications: Point-to-point infra-red data link
Supports Group 3 fax
Batteries: Four AAA alkaline or rechargeable NiCad batteries
Dimensions: 8 x 4 x 1.25 inches
Weight: 1.2lb
Price (approx.): 110 model: £410. 120 model: £530.

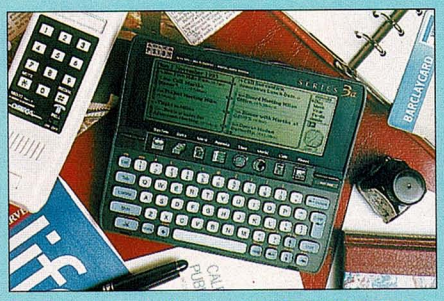
Using the Newton Connection Kit (about £65), you can connect either model of MessagePad to your Mac, provided you have an LCII or better, with System 7.1 or later. A PC Connection Kit also enables you to link a Newton to PCs with 80386DX chips or better running Windows 3.0 or later.

AN ALTERNATIVE FOR MORE MODEST POCKETS...

The Newton only qualifies as a convenient pocket-sized computer if you've got very large and extremely deep pockets. If you want something small to take on the road, with the capability to transfer data to your desktop Mac later, you don't really need something made by Apple. The best non-Apple alternative electronic replacement for your Filofax is the Psion Series 3a.

The Psion is much more compact and probably a fair bit sturdier than a Newton, with a large, bright screen and a diminutive QWERTY keyboard. It comes bundled with a variety of useful applications, including a *Lotus*-compatible spreadsheet, a comprehensive personal organiser and a built-in *Microsoft Word* compatible word processor which includes all the standard editing and formatting functions.

The whole Psion approach is very graphical and almost Mac-like, with icons for data file folders and applications. The Series 3a even includes a built-in digital signal processor (DSP) which enables you to record digital voice messages and attach them to documents, reminders or alarms, though it doesn't yet support true voice recognition. The word processor is simply superb, and even though the keyboard is very small indeed many people find it easier to use and more flexible than trying to train handwriting recognition on the Newton.



The Psion Series 3a: if you want an electronic notebook you can connect to your Mac, it needn't be a Newton...

Best of all, the Psion Series 3a offers a particularly easy-to-use Mac link, and also connects effortlessly to a variety of printers. Psion even offer an optional, though rather expensive, modem. The unit also includes an external power supply and two expansion slots, although it's not PCMCIA compatible. For the very reasonable price of around £329, the Psion Series 3a could be a serious contender for anyone looking for a truly mobile, pocket-sized solution to complement an existing desktop Mac system.

For more information, contact Psion on 0171 258 7248.

movable lid so you can have your cake and eat it too. Apart from GSM bits, the specifications for the MessagePad 120 are almost identical to the 110 and it retains compatibility with all accessories and software for the 110.

Both the 110 and 120 enable you to share information easily with your desktop Mac or even a Windows-based PC. The 120 can use a wired or wireless modem to send faxes (Apple are bundling MessagePads with a 2,400 bps external fax modem) or use built-in *NewtonMail* software to tap into e-mail and on-line services. Both models provide active assistance and work with a growing selection of PCMCIA expansion cards and external serial peripherals.

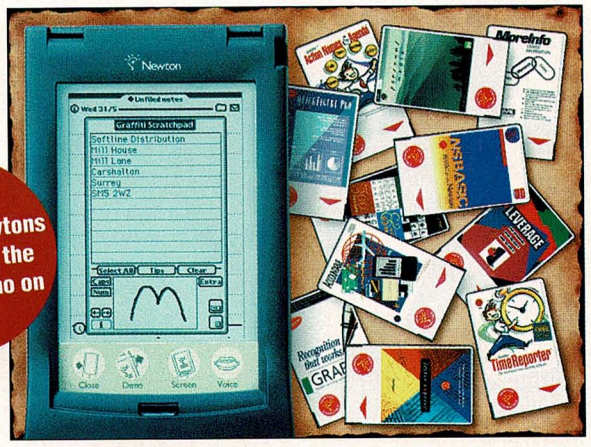
Who needs what?

While Newtons may be cooler than PowerBooks, they're also less functional, don't really do handwriting all that naturally and don't have keyboards (though they can display a simulated keyboard on which you can 'type' by tapping on letters with your stylus). They are ultra-portable, but they are not pocket-sized Macs and are not viable replacements for notebook computers. Despite the hype, they still need a lot of effort and training to recognise handwriting accurately. Even after a period of sustained use MessagePads may still suffer from 'jot-lag', particularly if you try to use them for serious note-taking.

Want to see what Newtons can do? Try the Softline demo on the CD!

What Newtons are good for is accessing information, and they are good communications devices. Both the MessagePad 110 and 120 can print, fax and modem data and documents. If all you need is an intelligent Filofax with digital notepad pretensions and the ability to access information titles like the *Economist Guide* and the *Time Out Guide to London*, it ain't half bad.

If you do any 'real' computing tasks – such as text entry, graphics, spreadsheets, databases, page lay-out, and so on – stick with a PowerBook. Just remember, although you can run address-book and to-do-list programs on your PowerBook, you can't put it in your pocket. So, if putting it in your pocket is an essential informational requirement, you'll have to buy a MessagePad as well.



Sample the range of Newton applications with the demo on this month's cover CD!

NEWTON EXTRAS

- Newton Connection Kit – vital for your Newton to talk to your Mac. £65.
- External Fax-Modem. £95.
- PrintPack. £48.
- PCMCIA Storage Cards for extra memory or for backup. A 1Mb card costs under £72, 2Mb is £136, and 4Mb is £255.
- A carrycase will cost you as little as £23, or as much as £90 for the deluxe leather variety.

For more information on all these products, contact Apple UK on 0800 127753.

Softline Distribution also handle a large range of Newton gadgets and software – phone them on 0181 401 1234 for your nearest retailer.

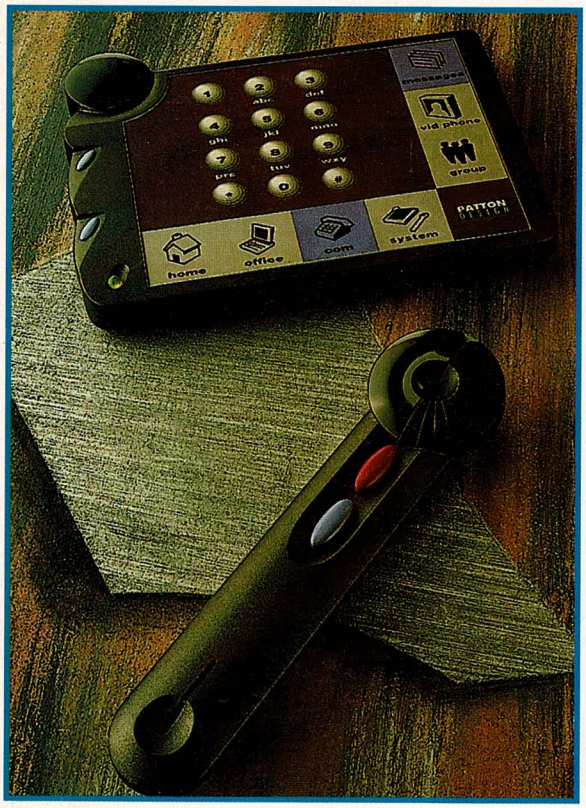
Newton Software

Newton still may not be the perfect writing tool, but you'd be amazed at the amount of software that's available for it. A lot of it is even useful. For a complete list of Newton MessagePad titles, including Apple's own StarCore label, ring Apple UK.

- *MobileMath / MobileCalc.* An improved calculator and spreadsheet combination with loads of functions. Computers Unlimited 0181 200 8282.
- *TapWorks.* Rather like a *ClarisWorks* for Newton. A four-in-one integrated package with text processing, spreadsheet, drawing, etc. £82. Softline.
- *Retriever.* E-mail and conferencing. EuroSource 0181 561 1993.
- *Personal Time & Billing.* Exactly what it sounds like. £58. Softline.
- *Money Magazine* offer *Financial Assistant* (£18.75) and *BusinessForms* (£6.99) – two progranss for setting up business analysis forms and financial planning. They're from Softline.
- *Executive Productivity Manager.* You can see why Newton was dubbed a yuppie tool. Softline.
- *ExpensePlus.* No, not a description of the Newton and all its bits, but a way of keeping track of all those 'official' expenses. £58. Softline.
- *The Economist Guide: The World In Figures.* This is the sort of thing that Newton is really good at. Pocket-sized information on economic and social indicators. Apple UK.
- *Time Out London Guide.* Some say this is the best thing on the Newton, information on entertainment and eating out with sophisticated search features. £58. Apple UK.
- *Fodors Travel Manager.* Top US cities. 500 locations per city, including restaurants, the type of cuisine and the credit cards they accept, plus other travel information and business services – hotels, sights of interest, airport information, etc. Apple UK.

Continued on next page

Back to the future...



The shape of portable Macs to come? Pictures on this page courtesy Patton Design, consultants to Apple's Advanced Research Division.

At present, no PowerBook has a PowerPC chip inside. The 603 chip, now used in the new Performa 5200 and 6200, was designed for the PowerMac PowerBooks, but tests showed it to be too slow, and a faster version is now being developed. These new machines will be powered, at least initially, by the new PowerPC 603e processor running at a cracking 100MHz – the processor speed of a PowerMac 8100/100. The chip's manufacturers, Motorola, promise that this CPU should provide slightly better raw power than the 110MHz 601 chip in the top-of-the-range 8100, although Apple more modestly claim overall performance somewhere between that of the PowerMac 6100 and 7100.

However, if you want to buy a PowerBook now, industry rumour suggests that both the PowerBook 500 series and the Duo280c will be upgradeable to PowerPC chips. To upgrade the PowerBook 500 line you'll have to add a daughtercard, weirdly code-named Malcolm. Upgraded PowerBook 500 models will have performance on a par with the 6100.

Reports suggest that Malcolm will eventually give way to an even slicker successor codenamed M2, a totally new line of all-in-one machines. These will weigh up to 1.5 pounds less than existing 500s and will also sport new bodywork. All but one will reportedly feature the same 603e processor.

The M2 series should feature several custom innovations, including a media bay that enables you to swap the floppy drive for a 3.5-inch CD-ROM drive or some other storage device, and there's even a Newton- and LocalTalk-compliant point-to-point infra-red transceiver. Unlike the 500 series, M2 models will reportedly have a full 32-bit data path (meaning faster processing of instructions) and come with 8Mb of RAM on the logic board. You'll be able to expand this to a hefty 64Mb, and these models will come equipped with speedy IDE (Integrated Drive Electronics) 500Mb hard drives.

Apple will also be playing 'keeping up with the Intels' by offering a 10.5-inch active-matrix screen or a dual-scan, passive-matrix colour screen. M2 models will abandon the dual battery bay concept and will house only one, packed with either a newly designed NiMH cell or a lighter lithium-ion power pack. A permanent PCMCIA slot, rather than a kludgie add-on cage, will also be available for adding the modem card and EtherNet functionality, and the slot will accommodate either a Type III (10.5mm thick) or two Type II (5mm thick) cards.

We understand that all current Duo models will be upgradeable to PowerPC through a logic board swap. The new board will feature a similar 100MHz PowerPC 603e, a 32-bit data bus and 8Mb of RAM as standard. A new batch of Duos, code named AJ, will sport the same configuration and be physically identical to the current Duo 280c except for much larger hard drives – up to 500Mb – and a larger 9.5-inch dual-scan passive matrix colour display or an 8.4-inch active-matrix. The current line of Duo add-ons will continue to be supported.

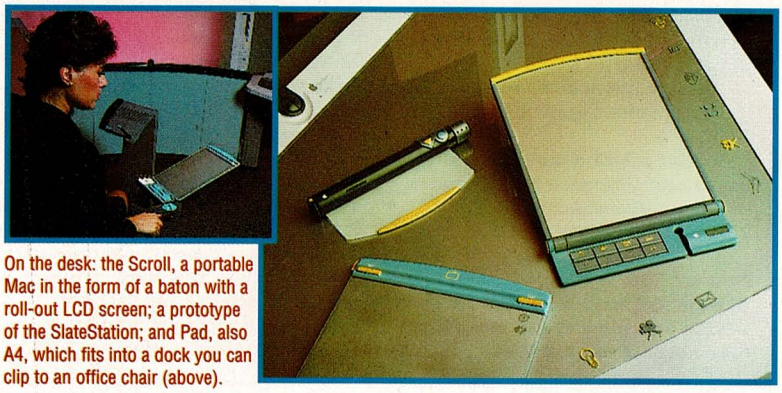
For some bizarre reason, Apple have decided to keep the 68030-based PowerBook 150 and add an M2 model codenamed Omega to the bottom end, based on the same 68LC040 chip as current PowerBooks. Both should end up costing less than £1,000. The new PowerBooks are on schedule for this August, although mischievous reports suggest a delay of as long as a month resulting from unexpected snags in PCMCIA support. Apple won't comment on unannounced products, but they have put the word out that this is simply bad gossip. Watch for full details of the new machines in MACFORMAT when they arrive.

Tomorrow's Newton

A clipboard model of the Newton is reportedly expected later this year and sources say the larger PDA with a landscape-oriented, 640 x 480 pixel, monochrome, passive-matrix LCD screen will be aimed at in-office use. Provisionally named the SlateStation, the three pound device should include two PCMCIA Type II slots and improved battery technology.

Unlike the current MessagePads, which use 9,600 bps directed infra-red signalling for point-to-point beaming, the SlateStation will reportedly be equipped with a built-in diffuse-infra-red transceiver. The enhanced infra-red capabilities will also enable the devices to connect into AppleTalk networks equipped with wired infra-red transceivers. For networking purposes, diffuse infra-red is relatively slow, only transmitting data at LocalTalk speeds, but it can bounce signals off walls and ceilings to maintain the necessary connections within an office. Unfortunately, both the infra-red capability and the larger screen will drain significant power from the PDA's batteries.

Apple are bundling MessagePads with a 2,400 bps external fax modem, but sources also suggest that they will switch to a faster 9,600 bps internal PCMCIA modem card with the SlateStation. After that, who knows? As all computer technology becomes more compact, full-featured portable Macs could become as small as Newtons, and Newtons the size of watches... **MF**



On the desk: the Scroll, a portable Mac in the form of a baton with a roll-out LCD screen; a prototype of the SlateStation; and Pad, also A4, which fits into a dock you can clip to an office chair (above).

Feel The Power Of FreeHand 5

Upgrade from:
Illustrator
Canvas
ClarisDraw
for only £149†

Feel the speed of working in the fastest WYSIWYG preview mode–faster than Illustrator and all the others!

Feel the power of page layout with text style sheets, spelling checker, columns, search & replace, copyfitting, linked text blocks, even multi-page support!

Feel the flexibility with dozens of new plug-in tools and palettes. Even use existing Illustrator plug-ins right within FreeHand!

Feel the possibilities of special effects like Fisheye Lens, 3-D Rotation, Multi-colour gradients, Calligraphy Pen, even Drag & Drop colour!

Feel the precision of "snap-to" grids, guides, and points–plus magnification of up to 25,600% on a massive 22' x 22' pasteboard!

Upgrade to the power of FreeHand 5: Only £125 for current FreeHand users; £149 for current Illustrator, Canvas or ClarisDraw users. Call the upgrade hotline for details.

New FreeHand 5

FREEHAND
DIRECTOR
AUTHORWARE
MACROMODEL
SOUNDEDIT 16
FONTOGRAPHER

Can you feel it? Ultimate power and unlimited freedom in design and illustration. It's all here in the new FreeHand™ 5. Every copy of FreeHand 5 ships with the amazing Showcase CD which is designed for digital designers just like you. You'll see cutting edge work from artists, designers, desktop publishers, illustrators and the world of multimedia that will not only show you what's possible, it'll inspire you to turn your vision into reality.

So go ahead, take a leap into the future and feel the power of FreeHand 5 for yourself.

CALL UPGARDES ON
0181 200 8282

† This offer ends on 1st May 1995. Macromedia is a registered trademark and FreeHand is a trademark of Macromedia, Inc. Other names are trademarks of their respective holders. © Macromedia, Inc. Prices are excluding VAT and handling.

Distributed by
Computers Unlimited
The Technology Park
Colindeep Lane
London NW9 6DU
Tel 0181 200 8282
Fax 0181 200 3788

MACROMEDIA®

Learning on the move

Late last year, the results of a national project on the use of portable computers in schools were released. Phil Moore packs his palm-top and hits the classroom.

MORE INFO...

A booklet entitled *Portable Computers in Action* outlines the NCET's portables project and its main conclusions. It is available for £5 from the National Council for Educational Technology, Milburn Hill Road, Science Park, Coventry CV4 7JJ, tel: 01203 416994.

All photographs on these pages are © NCET. MACFORMAT is grateful for the NCET's permission to reproduce them.

Life has altered considerably in Helen Chadwick's classroom at the Lancasterian School in Manchester: 'A quiet revolution has taken place... It enables me to deliver the curriculum more effectively and it's a great motivator.' What has caused this change? A large injection of resources? Smaller class sizes? No, it is the introduction of portable computers – to be exact, Apple PowerBooks.

Computers have been around for quite a while, and the Department for Education insists that there is currently an average ratio of 18 pupils to each computer in English schools. However, it wasn't until the government funded a £2.5 million project in 1993/4 that a large-scale project was implemented, looking at the distinctive benefits of mobile computing.

The Portables Project was managed by the National Council for Educational Technology (NCET). Stuart France, the Project Manager, is certain that the government's money was well spent: 'The experience of the 250 schools and colleges involved in the project is invaluable in showing how portable computers can alter pupils' learning experiences in a very positive way.'

Helen Chadwick was one teacher involved in the project at Lancasterian, which is a school for children with physical disabilities. The school already has IT in most classrooms, but Helen readily identifies what the PowerBooks have added: 'The portables finally get IT out of the classroom along with the pupils. For the pupils, this means independence, taking control over a situation and ultimately making decisions which are not based solely on logistics. They can begin to share the same experiences as their mainstream peers because they have both physical independence and the means to produce high quality work.'

Virtually all of the projects backed up this experience, with most teachers speaking about the students' increased motivation and self-esteem as they take responsibility for the portables and use them to present their work in ways that their own handwriting cannot achieve. Julia Radford at Oxford Road Primary School in Reading, for example, whose pupils were also using PowerBooks, said that her children are always keen to correct their writing, which didn't always happen before they started using the PowerBooks. 'Portability means that the children find them more user-friendly,' she says. 'It also means that they can take the computers home to complete tasks started at school.'

Andrew Fold and Sonja Day, who are teachers at Ladderbanks Middle School in Yorkshire, wrote that because pupils took their PowerBooks home, 'The whole family participated in the project activities, and this has initiated further projects in the home. Our school community as a whole has had its computer awareness and skills both broadened and enhanced. This has been almost entirely due to the fact that these machines are portable.'

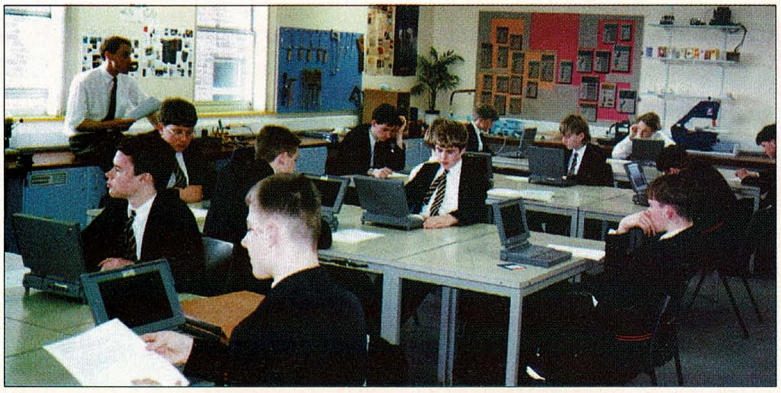
Portable education

So what types of activities did children use the portables for? They were used in every part of the curriculum at both primary and secondary levels. For example, Ladderbanks Middle focused on using them in teaching French. Using *ClarisWorks* with a French spellchecker, the pupils created magazines, leaflets, menus and tourist guides in French. In Design and Technology and language lessons, at Carre's Grammar School in Lincolnshire, students used PowerBooks for their word-processing and graphics facilities. Teachers at Oxford Road Primary found that children were becoming very adept at combining words and graphics. The Royal Manchester Children's Hospital School used theirs in all subjects for children who would otherwise have been unable to study much at all.

One group of pupils at a London secondary, Clapton School, were given PowerBooks which they used to produce a high quality school newspaper – *The Clapton Voice*. The pupils were working outside their lesson times on the Duke of Edinburgh Awards and took the portables to interviews for note-taking, and home so they could complete their work. The school also used their PowerBooks in science for data-logging (using the computer to monitor changes, such as in temperature, light levels and so on), as well as

Above: the pupils of Ladderbanks Middle looking very dedicated – definitely a posed photo. Right: Lancasterian School for physically handicapped children.

The Royal Manchester Children's Hospital – damn, now there's no escape from schoolwork.



Schoolchildren make use of the word-processing and graphics facilities on their PowerBooks for Design and Technology classes at Carré's Grammar School in Lincolnshire.

utilising them in history, geography and English for word processing, databases and graphics.

The beauty of portables is, of course, that they are portable. Ten and 11 year old pupils at Lancasterian School took their PowerBooks to Manchester Airport to conduct a survey of traffic and travellers' destinations. They devised codes for entering data to make their task easier and more efficient and, having collected the data, they went back to school to use the software to create bar-charts in order to display the information graphically.

The down side

Inevitably, the schools did encounter difficulties. The major problem appeared to be the management of batteries: where there were large sets of portables, the schools didn't always have sufficient electrical points to recharge all the batteries overnight. Consequently, some schools, unhappy with the frequent 'Your battery is operating on reserve power' messages, decided to use the portables' mains power adaptors for most of the time. This did, however, create the hazard of trailing wires.

File management started to get complicated when the portables were shared between pupils. Most of the schools resolved this problem by giving the children their own disks, so they could save to the floppy instead of the hard disk.

One down side of portables is, of course, that they are portable. The schools approached security in different ways – some designating secure areas for overnight storage, others arguing that portables were safer in the pupils' homes. Some of the schools that let pupils take the PowerBooks home asked parents to sign a written agreement ensuring that the portable would be covered by home insurance, or agreeing to collect and deliver the machine personally. Some of the portables used in the project did disappear and some were damaged, but this was a small proportion of the total number used.

Other possibilities

One interesting aspect of the project is that some of the Macs used can be connected to different makes of computers. For example, many of the schools involved used Acorn Pocketbooks – hand-held computers with a full keyboard. As many schools use Acorn computers, this would seem a natural choice of portable for pupils, particularly as at about £350 each, they are much cheaper than a desktop computer, to which they can link quite easily.

The good news is that there is an adapter available that can fit most Macs to the Pocketbook: in fact, I composed some of this article on my own Pocketbook and then transferred it, fully formatted, into *MS Word* on my Macintosh. If your child goes to a school that uses Acorn computers, it may well be worth your while checking out the Pocketbook.

PowerBooks in the home

The results of the project reported by the NCET are very positive and there's little doubt that all of the schools were delighted with the experience. But there's no reason why those benefits should be limited to school use. If you have access to a PowerBook at home, you could start thinking about how your child can use it.

For example, as this is the holiday season, why not take your PowerBook with you and get your children to keep a holiday diary? Apart from keeping them quiet for a little while every day, they can work on the diary when they get home and then turn it into a desktop-published newsletter – anticipating a frequently-used essay title in schools in September, 'What I did on my holiday'. Alternatively, you could keep a running record of your holiday spending money in a spreadsheet, or record details of a visit you made to a tourist attraction.

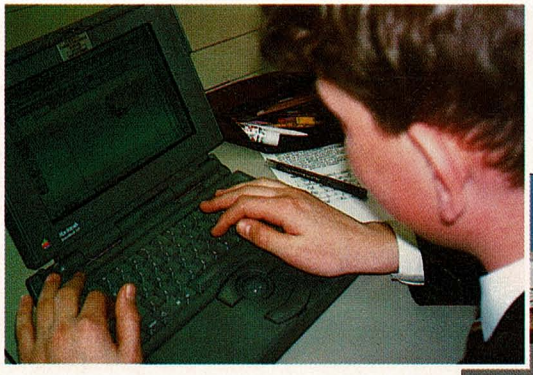
But, of course, a portable computer isn't just for the summer holidays. With some of the low prices currently around for the older PowerBooks, it might be a good time to seriously consider equipping your child with one for the new school year – let your child experience the benefits of computing on the move! **MF**

BREAKAGE

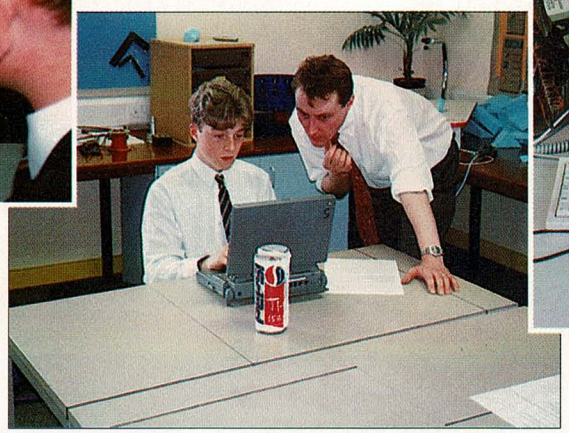
Some schools reported that the earlier makes of PowerBooks and Duos were not sturdy enough to withstand the classroom environment.

ALTERNATIVES

Some schools found it more cost effective to use Acorn Pocketbooks or similar machines from Psion and Tandy, instead of PowerBooks, and just connect them to a smaller number of desktop Macs in the classroom.



Design a T-shirt on your PowerBook and launch into the fashion industry!



At long last, children don't have to learn to write by hand, and teachers don't have to try and read it.

Ta-da! The Acorn Pocketbook II hooked up to a Mac LC.

The Apple Macintosh Specialists

No one knows the Macintosh better!

Unbeatable Bundles!

£799.00

Performa 630 4/250
with Performa Plus
Monitor and Keyboard

LC630 8/350 CD
with Performa Plus
Monitor and Keyboard

£999.00

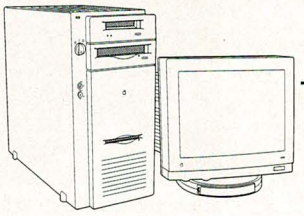
Apple Presentation System
Connect your Performa to a TV Monitor or VCR using this easy to use adaptor. **Only £220.00**

net corner

The Internet is certainly making more and more people join the technology revolution; we can make it easy for you to get started.

Holdens Internet Starter Bundle I (14,400 baud) **£175.00**
Holdens Internet Starter Bundle II (28,800 baud) **£249.00**

If you are interested in becoming an information or service provider, then the Apple Web Servers are great value for money, offering unbeatable performance, superb 'hit rates' and easy set-up.
Contact Jeff Webb for more details



Add VAT @ 17.5% to all prices

music & the mac

Holdens are specialists in the field of music solutions. We are accredited dealers for Mark of the Unicorn, Opcode and E-Magic products.

MOTU FreeStyle	£135.00
MOTU Performer	265.00
MOTU Mosaic	335.00
Opcode Vision	285.00
Opcode Music Shop	125.00
Opcode Overture	350.00
E-Magic Notator Logic	295.00
E-Magic Micrologic XL	115.00

Contact Tim Bateman for more details

digital video solutions

Authorised Dealers for VideoVision Studio

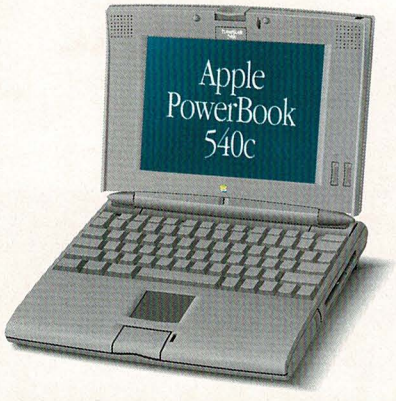
We stock: VideoVision Studio
VideoVision Studio ProPak

Just Arrived: **Graphics Unlimited Merlin**. This low cost digital video system offers superb performance and is ideal for the budget conscious studio. We can customise a solution based on Merlin, a choice of three Apple Power Macintosh computers and a variety of hard disks or arrays.

AV Hard disk drives are often not enough on their own; talk to us about RAID software and SCSI cards.
Contact Steve Carter for details

Berlitz Think and Talk Series
Learn to speak a second language with these great CD-ROMs

Think and Talk French	£145.00
Think and Talk German	145.00
Think and Talk Italian	145.00
Think and Talk Spanish	145.00



Great PowerBook Offer!
Buy a PowerBook 520c or 540c now and receive a voucher entitling you to a free PowerPC upgrade worth over £500!

PowerBook 520c 4/240	£1,850.00
PowerBook 520c 12/320 EM	2,350.00
PowerBook 540c 4/320	2,899.00
PowerBook 540c 12/500 EM	3,275.00

Ring for our latest free Newsletter & Pricelist

We accept Official Orders from Schools, Colleges and Education Authorities. We also accept VISA, ACCESS and AMERICAN EXPRESS credit cards

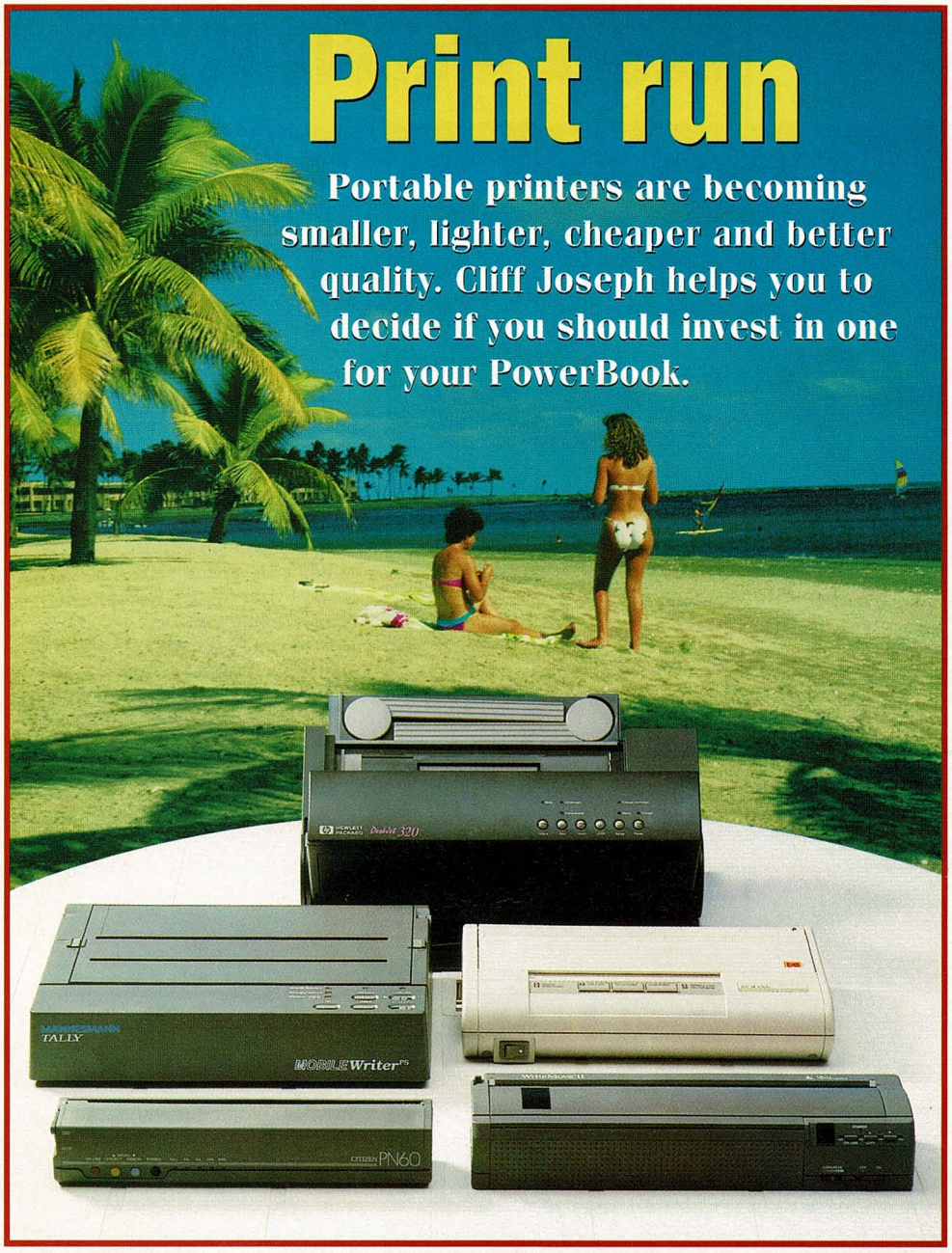
- Authorised Apple Business Centre
- Apple Schools & Further Education Reseller
- Apple Accredited Service Provider

Holdens
Computer Services Ltd.

The Mansions, Chapel Lane,
Longton, Preston PR4 5EB
Tel 01772 615512 FAX 01772 615919
UK0107@applelink.apple.com

Print run

Portable printers are becoming smaller, lighter, cheaper and better quality. Cliff Joseph helps you to decide if you should invest in one for your PowerBook.



If you spend a lot of time on the move with your PowerBook there's bound to come a time when you need to print out an important letter or urgent invoice, or to simply print out some notes to read while you're holed up in your hotel room.

It makes perfect sense, then, to buy a portable printer to accompany you and your PowerBook on your travels. As with any portable device, size and weight are the most important considerations. That's not a major problem, though, as the lightest of these printers goes down to a mere 0.5kg. All the portable printers reviewed here also are compatible with rechargeable batteries, so you don't even need to find a power socket.

However, you also need to make sure that the quality of the printer's text and graphics are good enough to meet your needs. There aren't any portable laser printers available just yet, but you can choose from several inkjet and thermal transfer printers that claim to provide 'near laser' quality. To be honest, some of those claims are just hot air. The simplest portable printers are strictly mono. That means just black and white only, and some of the printers can't even manage a few basic greyscales.

At one end of the scale you've got the cheap and cheerful mono Kodak Diconix M150+, which costs around £120. At the other end sits Mannesman Tally's MobileWriter PS. This is the heaviest and most expensive portable printer around, weighing a thumping 3kg and almost £900. However, its PostScript support means that it's capable of printing greyscales and even complex DTP work.

The chances are, though, that you'll require a portable printer that sits somewhere between those two extremes, one that is not only both lightweight and easily affordable but is still powerful enough to handle basic letters and simple graphics.

If you want colour output your choice is limited to using Hewlett-Packard's DeskWriter 320 or using a PC printer with the correct Mac adaptor such as PowerPrint (see the box below about Macs and PC Printers).

There is a clear overall winner among the portable printers reviewed here, but to be fair each printer possesses some good points, whether it's just affordable price or sheer light weight. So take a careful look at our reviews before you decide which of these printers has the makings of the ideal travelling companion.

Continued on next page

MACS AND PC PRINTERS

The printers reviewed here are all designed for use with Macs. However it's also possible to use a wide range of PC printers – both portable and desktop printers – with a Mac if you have the right cables and software.

The printer port on a Mac is different from that on a PC. Macs use a 'serial' port, while PCs use a 'parallel' port – terms which simply mean that they send data to the printer in a slightly different way. Fortunately, it's quite easy to get a serial-to-parallel printer cable that enables you to connect a Mac's serial port to the parallel port on a PC printer.

All you need then is a clever piece of software called a 'driver' that enables the Mac to control the printer. However, this is where things can get a bit tricky. Each printer requires its own specific driver software, but not all manufacturers produce drivers that will run on a Mac.

Fortunately, a company called GDT Software produces a useful package called PowerPrint that can get around this problem. PowerPrint includes a serial-to-parallel cable, as well as drivers for dozens of well-known brands of PC printer. It's an extremely reliable product, and many printer manufacturers work with GDT Software to make sure that PowerPrint will work with their printers. Canon, for instance, recommend PowerPrint to Mac users who want to buy their new BJ-30 and BJC-70 printers, which are designed primarily for use with PCs.

PowerPrint's recommended price is £135, but you can probably get it for less than £100 if you shop around. It might even save you money in the long run. PC printers are often much cheaper than their Mac counterparts, and if you've already got a PC printer it can save you having to buy a completely new printer for your Mac. Remember, though, to make sure that PowerPrint has a driver for the printer you want to use it with before you buy it. For more details contact Academy Software on 0181 656 9560.

Kodak Diconix M150+

Originally produced by Kodak, the Diconix M150+ is currently being sold off at the super low price of £117 by Morgan Industries. That might sound like a bargain, but the M150+ is an old printer, and sadly it's just not in the same league as any of its newer counterparts.

The first thing you'll notice is that the manual was written in about 1992 and hasn't been updated since. Neither has the printer software supplied with it, and this will cause you problems if you're using System 7 or 7.5. Instead of allowing your Mac to automatically put the printer driver into your Extensions folder, as both System 7 and 7.5 require, you'll need to fiddle about and place it on the top level of your System folder or the printer won't work.

Next comes the tricky business of actually setting the printer up, which somewhat bizarrely involves a piece of felt and a bent paper clip. As you may have gathered, we're not exactly talking high tech here.

Neither are we talking high resolution, either. The printer's resolution is limited to a mere 192 dpi, and both text and graphics are noticeably cruder than anything you'll get from the other portable printers reviewed here. There's very bad ink bleed on text, and our graphics test file came out looking like what can only be described as a patch-work quilt.

You also have to be careful with the metal arm that holds paper in place as it's fed through the printer. This has two rubber rollers on it and these can smudge the ink if you're not careful to push them right to the sides of the paper.

You get what you pay for with this printer. At £117 it's obviously extremely cheap, but its output quality is poor. It might just about pass muster for simple text-only documents, but you can forget about ever doing decent graphics.

KODAK DICONIX M150+

Price: £116.33 + p&p.
For more details contact Morgan Industries on 0181 575 0055.

MACFORMAT RATING 69%

Hewlett-Packard DeskWriter 320

The DeskWriter 320 stands out from its rivals. It's an inkjet printer, and the only printer in the group capable of colour output.

It's a good looking unit, matt black with high tech buttons on its control panel. You can either stand it upright to feed paper through it manually or lay it down and add a sheet feeder that can hold up to 60 sheets of A4 paper. Its battery life is good too – 100 pages on a full charge.

The inkjet printing mechanism can hold either a black ink cartridge or a colour cartridge that contains cyan, magenta and yellow inks for colour printing. The black cartridge can print with a resolution of 600 by 300 dpi and its text output is good, suffering from little of the scratchy outlines that can often mar inkjet output.

Colour resolution is slightly lower, at just 300 dpi, but we still got good results on our colour test file with strong colours and hardly any banding even on large areas of solid colour. However, large areas of colour do result in damp patches of ink being left on the page, so you need to be careful not to smudge this before it dries.

Installing the printer took only a couple of minutes and caused no problems. The printer is supplied with its own cable, and HP's printer software, *ColorSmart*, is very slick. It includes several preset options designed to cope with a variety of different printing tasks, from simple black text to complex greyscale or even photographic images. If you're not sure which options to choose you can just click the 'automatic' button and *ColorSmart* will detect the kind of document you're about to print and select the right settings automatically.

The quality of both mono and colour output, and the DeskWriter's affordable cost, make it the clear leader among the current crop of portable Mac printers.

HP DESKWRITER 320

Price: £260.00.
For more details contact Hewlett-Packard on 0171 730 9000.

MACFORMAT RATING 85%

Citizen PN60

Citizen claim that the PN60 is the smallest printer in the world, and they are probably right. The unit is very small and extremely light, weighing in at only half a kilogram and being only fractionally wider than a sheet of A4 paper.

The printer has a resolution of 360 dpi, and this produces good smooth curves on text. However, it's a thermal transfer printer and we found that the wax coating doesn't always adhere properly to plain paper, which can result in a slightly patchy appearance particularly when printing solid blacks.

The PN60 can hold either simple black or colour ribbon cartridges, but Citizen recommend that you only use colour ribbon for printing coloured text rather than colour graphics. Unfortunately, we weren't supplied with a colour ribbon, and the printer's software doesn't provide a greyscale option, so we were unable to print our graphics file at all. The Citizen PN60 is therefore really only useful for printing text, line-art and simple mono graphics.

The overall design of the PN60 is ingenious, with several little flaps and buttons that provide access to all the printer's main features. However, the four-button control panel does take a little bit of getting used to, especially as the printer has the annoying habit of putting itself off-line after each printing job.

Most confusing, though, was the Installer utility, which somehow installed the wrong printer driver. This meant that we had to manually copy the correct printer driver off the disk ourselves in order to get the printer working.

If portability is your main consideration then you'll find that at 0.5kg, the Citizen PN60 is very hard to beat. But you must be prepared to accept that overall its printing capabilities are pretty limited.

CITIZEN PN60

Price: £410.00.
For more details contact Citizen Europe on 01753 584111.

MACFORMAT RATING 82%

GCC WriteMove II

The GCC WriteMove II is another lightweight thermal printer, though it's slightly larger and heavier than the Citizen PN60. The extra size and weight are definitely worth putting up with, though, as they result in better print quality. The printer doesn't have a colour option, but it can hold two different types of black ribbon cartridge.

The 'multi-strike' ribbon is like a typewriter ribbon, and can be rewound and reused up to five times. Alternatively, you can use a 'single-strike' ribbon. As the name implies, this can only be used once but the print quality it provides is better. The multi-strike ribbon produces quality similar to that of the PN60, but the single-strike ribbon is better and eliminates some of the patchiness that thermal printers are prone to.

Unlike the PN60, GCC's printer software also provides a good greyscale option. We were able to get quite good results when printing our graphics test file, though there was noticeable banding on the image.

Installing the printer is very simple. Its control panel is easy to understand and the printer even has a small LED display to provide status information while it's in use.

Paper can be fed into the printer either from above or below, with the lower input path being used for thicker paper types such as envelopes or OHP film. However, we found that the printer would often come up with an 'Out Of Paper' message even when there was paper inserted into it and the status display indicated that the paper was in place. This proved irritating after a while, as we were forced to keep shoving the paper into the feeder mechanism in order to get the printer to work.

That apart, the WriteMove II is a good choice if you're looking for a highly portable mono or greyscale printer and don't need colour output.

GCC WRITEMOVE II

Price: £468.00.
For more details contact GCC Technologies on 0181 569 4030.

MACFORMAT RATING 81%

Continued on next page

Mannesman Tally MobileWriterPS

A bit of a weird one, this. The Mannesman MobileWriterPS is probably the only portable PostScript printer on the market.

It's a thermal transfer printer, but where the GCC and Citizen printers use small ribbon cartridges, the MobileWriter uses a larger cassette mechanism. As a result, the printer is larger, heavier and more complicated to set up than any of its rivals. It has a complex set of panels that have to be unfolded when setting the printer up, and you'll need to pay attention to the manual as it's not obvious how to get it working properly.

The manual's pretty appalling, unfortunately. It's heavy on technical waffle and contrasts poorly with the simplicity of the HP Deskwriter 320.

Output quality is quite good, though. Text output is similar to that of the GCC WriteMove, and its graphics output is possibly the best of the three thermal printers. Its strong point is its PostScript support, which enables it to perform well with greyscales and complex shading. There's no colour option, though, leaving the DeskWriter 320 as the only option for colour printing.

Its built-in battery prints up to 150 pages on a full charge, and it also includes a full 2Mb of on-board RAM, which means that you can download really complex documents to it.

Mannesman Tally admit that thermal printers are limited when printing on plain paper, and recommend high quality glossy paper for best results. Remember, though, that this kind of paper is a lot more expensive than ordinary office paper.

To be honest, it's hard to see who this printer is really aimed at. It might find a niche among travelling business people who need to do high quality presentations in their work, but the majority of users will probably put cost and portability ahead of PostScript support.

MANNESMAN MOBILEWRITER

Price: £869.00.
For more details contact FrontLine Distribution on 01256 841841.

MACFORMAT RATING 75%

APPLE

Apple's Portable StyleWriter is an A4 battery powered inkjet with 360dpi resolution, priced at around £240 or less. If you don't really need the battery option, a normal StyleWriter is almost the same size and cheaper. You don't see the Portable advertised much any more and it is not reviewed here because production has ceased in anticipation of a new replacement, which has just been announced – see page 22.

PORTABLE PRINTERS AT A GLANCE

	Diconix M150+	HP DeskWriter 320	Citizen PN60	GCC WriteMove II	MT MobileWriterPS
List Price	£116.33	£260	£410	£468	£869
Print Mechanism	Inkjet	Inkjet	Thermal Transfer	Thermal Transfer	Thermal Transfer
Type	mono	mono/greyscale	mono	mono/greyscale	mono/greyscale
Colour Option	no	yes	yes	no	no
Price of Colour Option	n/a	£23.50	£8.99	n/a	n/a
Resolution	192 x 192 dpi	600 x 300 dpi mono 300 dpi colour	360 dpi	360 dpi	300 dpi
Dimensions (WxHxD cm)	27.4 x 5.0 x 16.5	32.9 x 6.5 x 14.7	25.4 x 5.0 x 4.7	29.2 x 9.0 x 5.0	29.0 x 5.9 x 22.0
Weight	1.7kg	2.0kg	0.5kg	1.0kg	3.8kg
Prints On Plain Paper	yes	yes	yes	yes	yes**
Prints On Envelopes	yes	yes	yes	yes	yes
Prints On OHP Film	yes	yes	yes	yes	yes
Max. Paper Size	A4	A4	A4	US letter	A4
Power Supply	Mains or Battery	Mains or Battery	Mains or Battery	Mains or Battery	Mains or Battery
Battery Supplied	yes	yes	yes	yes	yes
Battery Life	50 minutes	100 pages	50 pages	12-16 pages	150 pages

NB: All Prices include VAT. Street price may vary. ** High quality glossy paper recommended.

JARGON BUSTERS

Greyscale: Greyscale printing uses black dots of different sizes, printed on a white background to simulate different shades of grey.
Inkjet printing: A printing technique in which a cartridge of liquid ink is used to squirt fine dots of ink onto paper in order to form text or graphics. Also known as 'bubble-jet' printing.
Mono printing: Printing that uses black dots of a fixed size to create simple black and white image with no greyscales.
Parallel Port: The type of socket used to connect PCs to PC printers.
PostScript: A specialised computer language designed specifically to cope with high quality printing tasks. Some Mac printers work with both PostScript and QuickDraw.
Printer Driver: A piece of software that enables your Mac to control your printer. Each printer has its own special driver, supplied by the manufacturer.
QuickDraw: The system used by the Mac to create text and graphics on screen, and also to send those text and graphics to a printer. All Mac printers will work with QuickDraw.
Resolution: This is measured in dots per inch (dpi), and refers to the number of dots used to create text and graphics on the page. Therefore, the higher the resolution, the higher the quality of the image.
Serial Port: Unlike PCs, Macs use a socket called a 'serial port' to connect to printers. If the printer doesn't have a serial port (also known as a LocalTalk or AppleTalk port) then it's not a proper Mac printer.
Serial-To-Parallel cable: A special cable that can be used to connect the serial port on a Mac to the parallel port on a PC printer.
Thermal Transfer: A printing technique that uses a ribbon coated with coloured wax. The ribbon is heated and the wax is transferred onto paper to form text or graphics. Often performs better on high quality glossy paper.

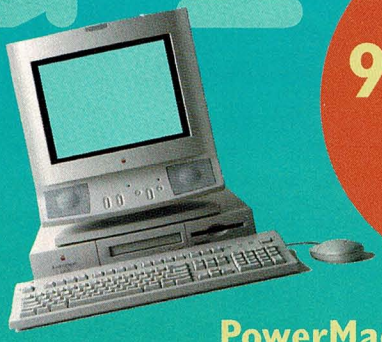
... network installation and support - free site surveys
... free pre-configuration on all systems
... uncompromised nationwide maintenance coverage

mactrix

01372 723723

PowerMac 6100/66 8/500

= £1089



Add 14" Macintosh Colour Display + Design Keyboard for only... £325

PowerMac 9500/120 16/1GBCD £3699

Software

Adobe Collection	£519.00
Adobe Illustrator 5.5	£279.00
Adobe Photoshop 3.0	£389.00
Adobe Pagemaker 5.0	£425.00
Adobe Persuasion 3.0	£229.00
Adobe Streamline 3.0	£95.00
Adobe Type Manager 3.8	£27.00
Adobe Type Reunion	£39.00
Claris FileMaker Pro	£95.00
ClarisWorks 3.0	£94.00
Connectix RAM Doubler	£51.00
MacroMedia Freehand 5.0	£295.00
Microsoft Excel 5.0	£252.00
Microsoft Word 6.0	£252.00
Microsoft Office 4.2	£349.00
Modulus Silver Plus v3.7	£245.00
OmniPage Direct	£69.00
PhotoDisc Volume 1/18	£239.00
Quark Xpress 3.31 Native	£649.00
Quark Xpress 3.3	£589.00

Utilities

Symantec Norton Utilities	£79.00
Symantec SAM 4.0 with Subscription	£109.00
Symantec Suitcase 2.1.4	£49.00
WordPerfect 3.0	£98.00

Entertainment

7th Guest	£35.00
Daedulus Encounter (CD)	£35.00
Flashback	£29.00
Marathon	£39.00
Myst	£35.00
Rebel Assault	£35.00
Return to Zork	£35.00

Call for CD Writer prices

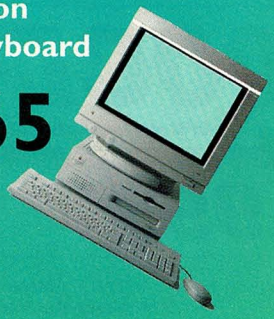
CD-ROM Drives

Apple CD 300e External	£189.00
d2 2.4x Sony External	£185.00
d2 4x Pioneer External	£379.00

PowerMac 7100/80 8/700CD

+ 14" Trinitron Display + Keyboard

= £2265



Upgrade to 17" Display +Radius 24xk Graphics Card for £779

PowerMac 8100/100 16/700CD

+ 20" Trinitron Display
+ Radius Pro 24x Card
+ Extended Keyboard

= £4765

PowerMac 6100 Bundle

PowerMac 6100/66 8/500
+ DOS Compatibility Card ...
includes 8Mb

= £1465

Visioneer PaperPort for only £339!

Radius Revolutions!

PrecisionColor Pro 24XP	£375.00
PrecisionColor Pro 24XK	£495.00
PrecisionColor Pro 24X	£699.00
Radius Thunder IVGX•1152	£1629.00
Radius Thunder IVGX•1360	£1979.00
PrecisionView 17" Display	£619.00
IntelliColor Display 20e	£1349.00
IntelliColor Display 20e + Pro 24X	£1885.00
IntelliColor Display 20e + Thunder/24GT	£2309.00
SuperMatch 21•T XL + Thunder IVGX•1152	£3099.00
SuperMatch 21•T XL + Thunder IVGX•1600	£3999.00

Hardware

CPUs

Performa 630 8/500CD, 14" Trinitron + Kybd	£989.00
Performa 630 8/500CD Plus, 15" + Keyboard	£1062.00
Performa 630 8/350CD V-in TV, 15" + Kybd	£1235.00
Performa 5200 8/500CD	£1319.00
Performa 5200 Plus 12/500CD TV	£1529.00
Performa 6200 Plus 8/500CD, 14" + Kybd	£1179.00
Performa 6200 Plus 8/500CD, 15" + Kybd	£1386.00
Quadra 630 4/250, 15" + Keyboard	£939.00
Quadra 630 4/250, 14" Trinitron + Kybd	£899.00
PowerMac 6100/66 8/500CD	£1280.00
PowerMac 7100/80 8/350	£1629.50
PowerMac 7100/80 8/700CD AV	£1899.00
PowerMac 8100/100 8/700	£2389.00
PowerMac 8100/100 16/1000CD AV	£3010.00
PowerMac 8100/110 16/2000CD	£3369.00
PowerMac 9500/132 16/2000CD	£4379.00

Scanners

Epson GT6500, Photoshop LE + Omnipage	£465.00
Epson GT8500, Photoshop LE + Omnipage	£569.00
Epson GT9000, Photoshop LE + Omnipage	£779.00
UMAX Vista T630 + Photoshop LE	£599.00
UMAX Vista S6 + Photoshop LE	£639.00
UMAX Vista S8 + Photoshop LE	£739.00
UMAX PowerLook Pro inc. Tranny Adapter	£1999.00
Polaroid SprintScan + Photoshop LE	£2019.00

Optical Disc Drives

d2 230Mb External	£589.00
d2 1.3Gb External	£1545.00

SyQuest Removable Drives

88Mb SyQuest Drive	£259.00
200Mb SyQuest Drive	£369.00
270Mb SyQuest Drive	£389.00

Inkjet Printers

StyleWriter II	£209.00
Colour StyleWriter 2200	£269.00
HP DeskWriter 540	£223.00
HP DeskWriter 660c	£359.00
HP DeskWriter 850c	£439.00
Epson Stylus Colour	£375.00

Laser Printers

Personal LaserWriter 320	£599.00
LaserWriter 16/600 + Fax Card	£1510.00
Colour LaserWriter 12/600	£4730.00
HP LaserJet 4ML	£799.00
HP LaserJet 4MP	£920.00
HP LaserJet 4MV	£2080.00
Texas Instruments MicroWriter PS23	£479.00
Texas Instruments MicroLaser 600	£619.00
Texas Instruments MicroLaser Pro 600	£869.00
Texas Instruments MicroLaser PowerPro	£1099.00

Fax: 01372 747748

For more information

01372 723723

Open Mon - Fri 9am - 6pm

Mactrix, Unit 6, First Quarter, Blenheim Road, Epsom, Surrey KT19 9QN. Fax 01372 747748

Mactrix is a trading division of 4si Limited. All trademarks are acknowledged. Prices subject to VAT & delivery where applicable. Offers subject to availability. E & OE. The computer systems shown are for illustration purposes only.

4si

Authorised Reseller

The Mac Zone™ United Kingdom

Call our Sales Hotline free on 0800 393 696

New Macintosh Computers

Performa 5200CD

Complete with ClarisWorks 3.0 and Design Keyboard

5200CD 8/500
1,279.00

As above plus a total of 18 CD ROMs and 5 software titles

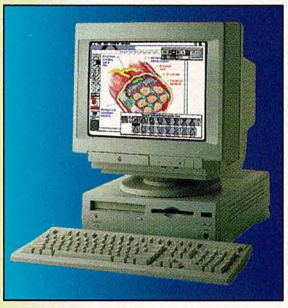
5200CD Plus 8/500
1,339.00

or with 12 MB RAM, 18 CD-ROMs, 5 software titles plus TV and Video input system

5200CD Plus 12/500 TV V-In
1,549.00

75MHz PowerPC 603 Processor with 8MB Memory, 500MB Hard Disk with a QUAD speed CD-ROM drive, an integral 15" MultiScan monitor with stereo speakers, headphone and microphone sockets.

Performa 6200CD



CPU and keyboard only

6200CD 8/500
999.00

Complete system with a Performa 14" Colour Monitor

6200CD 8/500
1,199.00

Complete system with 14" Trinitron monitor, DesignSpeakers, 18 CD-ROMs and 5 software titles

6200CD Plus 8/500
1,299.00

75MHz PowerPC 603 Processor with 8MB Memory, 500MB Hard Disk with a quad speed CD-ROM drive. Packaged complete with ClarisWorks 3.0 and Design Keyboard

Performa 630 DOS Compatible

CPU and keyboard Only

630 12/500 CD DOS Compatible
1,339.00

CPU with a 15"MultiScan monitor and Design keyboard

630 12/500 CD DOS Compatible
1,649.00

Mac Processor: 33/66 MHz 68040
PC Processor: 66MHz 486DX2

A total of 12MB RAM, 500MB hard disk and internal twin speed 300i CD-ROM Drive.

Features include: Full dual format support, easy motherboard access, easy SIMM installation and an optional TV Tuner system. (Call for details)

Mac Zone Twin Speed CD-ROM

Supplied as a full plug-and-play tray-loading package including:

Twin Speed CD-ROM
129.95

A TRULY STUNNING DEAL!!

- NEC Twin Speed drive
- Xpand Xpo CD-ROM
- CD-ROM Utility Software including CD-ROM Cache and Audio CD controls
- Desktop Mac to SCSI Cable
- Power Cable & Terminator

(CD Drive shown for illustration purposes only)

Apple QuickTake 100 Camera

31613
199.95

This lightweight digital camera allows you to take colour pictures without using film - and import them directly into your Mac. It comes with QuickTake software, which can download images into your Mac and rotate, crop, scale and zoom in on images as you edit them.

This package contains

- **QuickTake image software for 68K and PowerMacs**
- **serial connection cable,**
- **camera strap**
- **battery charger and set of batteries.**

PowerMac 8100 Package

Shown with an Apple 20" Monitor

8100/80 8/500
2,435.00

8100/80 8/500

80MHz 601 RISC Processor 8MB Memory, 500MB Hard Disk with System 7.5 with a 17" Nokia monitor, full extended keyboard and all connection cables required

other configurations available please call for details

All products and prices subject to availability. All prices exclude carriage (£5 per order) and VAT

All prices quoted are on the basis of payment with order. The Mac Zone accepts Visa, Access, American Express, MasterCard, Connect and Switch as well as cash, postal orders and cheques, however cleared funds are required before the goods are shipped.

We make no surcharges for credit cards and the cards will not be debited until the day the goods are shipped. This is only a sample of what is available from the Mac Zone U.K. **Please call for details of other products, and to register for our catalogues and Air Miles**

Call 01483 211 456 or fax 01483 211 567

Special Offer Softwindows for PowerMac only £99.95 *(requires 16MB RAM)*

The Mac Zone™ United Kingdom

Adobe Collection

Adobe

Photoshop 3.0
The industry standard for photo design and production. Helps you create original artwork, or retouch and correct scanned images using image editing tools and filters

Dimensions 2.0
The easiest way to add 3D to your artwork. Allows you to extrude, revolve and manipulate paths and text.

Illustrator 5.5
The leading illustration and page design tool. Makes it easy for you to create and refine electronic artwork.

All 3 for 1 amazing price!

31961 **489.95**

Apple MultiMedia Kit

This special Mac Zone package includes

- ***Apple CD 300e Plus***
- ***Design Powered Speakers II***
- ***FWB CD ROM ToolKit***
- ***10 CD-ROM Titles***
- ***Mac to SCSI Cable***
- ***Apple Design Headphones***
- ***Power Cable & Terminator***

31808 **299.95**

MessagePad 110

Apples' Personal Digital Assistant

Manage and exchange information with your computer.

Powerful handwriting recognition – for printed and cursive writing styles

Allows free-form note taking – mixing handwriting, printed text and graphics

Produce daily to-do lists, assign priorities to tasks, create name files for associates in a card format and plan monthly, weekly and daily calendars.

Extra functions can be added from the vast range of Newton software available.

New Low Price

31354 **199.95**

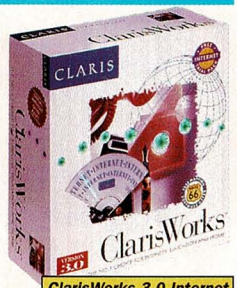
Communications

GeoPort Adaptor for AV's	99.95
GeoPort Adaptor for PPC	99.95
TelePort Gold II	129.95
TelePort Platinum	229.95
Supra 28,800 Modem	£199.95
Supra 14,400 Modem	£169.95
Mac'n'Fax 28,800 Modem	249.95
QuickMail 3.0 (Single User)	99.95
QuickMail 3.0 (5 User)	219.95
QuickMail 3.0 (10 user)	319.95

Other communication hardware and software available, please call for details

ClarisWorks 3.0 (Internet)

Features a free CD-ROM with a 'ready to connect' pack for the Internet



This package includes

- **Complete connection kit (software only)**
- **10 hours of free Internet connection**
- **250 examples of Clip art (from ClarisDraw ClipArts)**

ClarisWorks 3.0 Internet **99.95**

The No. 1 choice for integrated software

Accessories (Apple unless stated)

DesignSpeakers II	59.95
DesignHeadphones	24.95
Connectix QuickCam	109.95
ADB Mouse II	39.95
Design Keyboard	79.95
Adjustable Keyboard	169.95
MacAlly Extended Keyboard	69.95
MicroQue Questick	59.95
MicroQue QuePad	29.95
Kensington MicroSaver	19.95
Kensington Thinking Mouse	69.95
Kensington Turbo Mouse 4	79.95

Removable Media

Genuine SyQuest – (price each)

44MB	£29.95
88MB	£34.95
200MB	£52.95
105MB	£35.95
270MB	£41.95

Verbatim Optical Disks

128MB	£14.95
230MB	£20.95
650MB	£45.95
1.3GB	£59.95

Software Utilities

System 7.5 (disk)	59.95
System 7.5 (CD-ROM)	59.95
Norton Utilities	79.95
RAM Doubler	49.95
Expresso	39.95
LaunchPad	29.95
After Dark 3.0	29.95
Conflict Catcher III	49.95
CodeWarrior Bronze 6.0	69.95

Software Titles

WordPerfect 3.1	99.95
Adobe Illustrator 5.5	279.95
MacroMedia FreeHand 5.0	328.95
Microsoft Office 4.2	368.95
Fractal Painter 3.0	289.95
Avid VideoShop	299.95
MacroMedia Fontographer	299.95
Bungie Marathon	39.95
StarPlay Loony Labyrinth	29.95

Call for your free copy of our latest catalogue

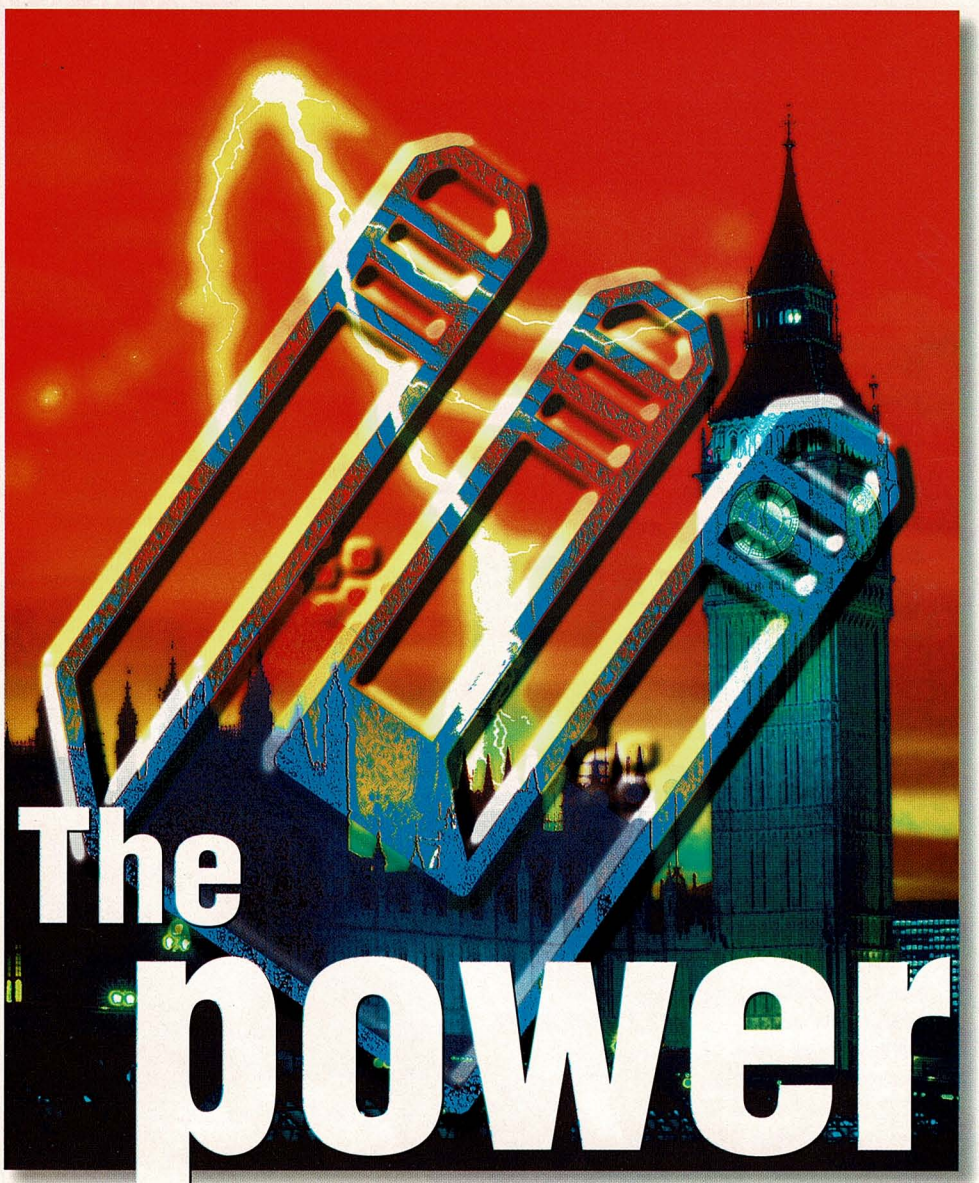
All products and prices subject to availability. All prices exclude carriage (£5 per order) and VAT

SWITCH DELTA AMERICAN EXPRESS

P.O Box 34, Ripley, Surrey, GU23 6YR

VISA MasterCard

All trademarks are acknowledged as belonging to their respective companies. E.& O.E.



The power of PLUG-INS

Applications developers don't always include the features users need! But they do leave a back door in case of an emergency. Marcus Dyson explains how.

There's one easy solution when the application you are using doesn't do everything you want. Buy another one. Now the new one does most, but not all, of the things the first one did, and some of the things it didn't, but the two combined still don't have all the features you need. So buy another one. The third one does all of the rest of the things that the first two didn't, plus some of the things the second one didn't but the first one did, and some of the things that the first one didn't but the second one did. Confused? You would be! Not only would your hard disk be heaving under the strain, but your wallet would be too. Plus you would have to constantly swap documents from one application to another to do all you wanted to it.

So there must be a better solution. Surely applications developers should give us packages that can do absolutely everything we could ever possibly require! Well... no, they shouldn't. Not only would such applications take forever to develop (they'd contain far more code to hide bugs and 'undocumented features'), but they'd also take up too much hard drive space, cost too much to develop, and take too long to learn to operate. Besides, so many users put so many programs to such diverse uses that it's hard to believe Quark, Adobe, Macromedia or Aldus could ever foresee all of them and address the requirements they'd produce.

So that solution won't work either! Now what? Well, what about an application that is user configurable? Sure, almost all programs are user configurable to an extent via their preferences. You can change what colour your guides are in *QuarkXPress*, or whether your selection tools are elliptical or rectangular in *Photoshop*. But what if you could actually add the functions you need to your favourite programs, and take away the ones you don't need? Well you can, but many people don't realise this. Many of today's most popular packages have

Add the functions you need to your programs, and take away the ones you don't need.

what is called an 'open architecture'. What this means is that the developers of the original program leave 'hooks' on which programmers can hang their own bits of code, and these little 'subroutines', as they are called by programmers, are accessible seamlessly from within the program just like any of the packages' other features.

The result is a package that can, with the assistance of third party developers, meet the requirements of all its potential users. Imagine the tricky subject of page imposition. (That is, the way pages are placed next to one another, and upside down, so that when they are folded and cropped they will be in the correct sequence to make up a magazine or brochure.) A DTP program like *QuarkXPress*, which is used to design this magazine and a great many similar publications, could have a feature to take care of imposition. But it would be of little use to the hundreds of thousands of users who only ever output their documents on an A4 laser printer. Instead, DK&A produce an XTension for *XPress* called *INPosition* which offers this functionality only to those users (typically high end repro houses and web-offset litho printers) who require it. It's a very expensive XTension, because it has such a small potential market. But it saves printers so much time, it's worth the money.

This way of addressing users' requirements can mean extra sales for the publishers, because their program can be sold into even the most niche of niche markets, as long as someone develops the requisite plug-in.

Most applications' plug-ins only

Try them for yourself – there's 100s of plug-ins on this issue's CD-ROM!

ILLUSTRATOR

Perhaps because it's made by Adobe, *Illustrator* confusingly accepts add-ons called plug-ins that are not interchangeable with *Photoshop* plug-ins in any way. Instead they add new features to Adobe's drawing package. Unlike *Photoshop*, *Illustrator* doesn't have a lot of third party plug-ins.

A BETTER TEAM THAN BATMAN AND ROBIN?

Like the daredevil duo themselves, there are a number of programs that are considerably enhanced with the addition of a suitable sidekick. *Photoshop* plug-ins are designed to add functionality to Adobe's world-beating image manipulation program, but plug-ins (often called filters, because they appear in the program under the Filters menu) have gone on to become a world standard for bitmap editing programs, thanks to Adobe's shrewd move in making the system freely usable.

The following programs all accept *Photoshop* plug-ins:

- ***Adobe Premiere*** **– Adobe's desktop video editing package can use *Photoshop* plug-ins to add special effects to your QuickTime movies.**
- ***Avid VideoShop*** **– a similar package to *Premiere*, which makes similar use of plug-ins.**
- ***CoSa After Effects*** **– another QuickTime package, but this is designed primarily for adding special effects to movies.**
- **Apple *PhotoFlash* – this image processor is designed primarily for cleaning up and cataloguing scanned images.**
- ***Fauve Matisse*** **and *XRes* (watch for a review of the new version 1.1.1 in MACFORMAT next month) – these two paint/image processing packages from French authors Fauve both support plug-ins.**
- ***PhotoFix*** **(reviewed in MACFORMAT 24) – a cheap but very effective image processor, it lacks some features, but makes up for this by accepting plug-ins.**
- ***Microfrontier Enhance*** **and *ColorIt!* – these two are really paint packages (one of them mono, one colour – we'll let you guess which is which), but when combined with a plug-in package like *KPT Convolver* (which has *ColorIt!* bundled with it for free) they become useful image processors.**
- **DayStar *PhotoMatic* – a batch editing package for *Photoshop* which comprises a *Photoshop* plug-in and a stand alone package that uses *Photoshop* plug-ins. Stop press: shortly before going to print we received news that DayStar, in an attempt to increase support for *PhotoMatic* in terms of scripts and utilities, have made the application freeware. Users can download the software, after filling out a registration form, from: http: //www.daystar.com /PhotoMatic_FnB.html.**
- **Equilibrium *DeBabelizer* and *DeBabelizer Lite* – primarily a batch processor for file form at conversion, *DeBabelizer* can be used with filters to batch apply their effects.**
- **Fractal Design *Painter/Sketcher* – both of these 'natural media' packages, designed to emulate the effects provided by media like brushes and charcoal, can use *Photoshop* plug-ins to apply image processing effects.**
- ***Ray Dream Designer*** **– this 3D rendering package uses *Photoshop* plug-ins to post process the images it creates.**
- ***Specular Collage*** **– this package uses low resolution preview to position and composite images. It then renders a print resolution image from the original files.**
- ***Strata Vision, Strata Type 3D*** **and *StrataStudio Pro*** **– these 3D ray modelling and rendering packages use *Photoshop* plug-ins to process the images they produce.**

Some of these packages (*Ray Dream Designer* and *ColorIt!* for example) enable you to leave your plug-ins where they 'belong' in the *Photoshop* plug-ins folder, and specify that folder from the new application's preferences. This means you don't need duplicates of the plug-in files spread over your hard drive. If programs lack this feature, it's a good idea to use aliases of your plug-ins where they are used by secondary programs.

work with that application. Hence *PageMaker* Additions, which are far more like macros than true program enhancements, will not work in *QuarkXPress*, and *FreeHand* XTras will not work in *Illustrator*. This seems to make commercial sense, since the program with the most powerful plug-ins and the greatest selection of them will obviously serve you best, and therefore sell more. But one very obvious exception to this rule is *Photoshop*.

It can be argued that *Photoshop*'s wholehearted adoption of plug-ins right from version 1.0 has had more to do with its domination of the image processing market than any other single factor. The program certainly has a larger selection of plug-ins than any other application. But Adobe, the publishers of *Photoshop*, made the plug-in an open standard, meaning that third parties could not only make plug-ins for *Photoshop*, but they could also make their own applications accept *Photoshop* compatible plug-ins too. This means that relatively modest image processing packages like *PhotoFix* or *ColorIt!* can be transformed into powerful and versatile programs with many of the features of *Photoshop* by the addition of plug-ins like *Kai's Power Tools* and *KPT Convolver*.

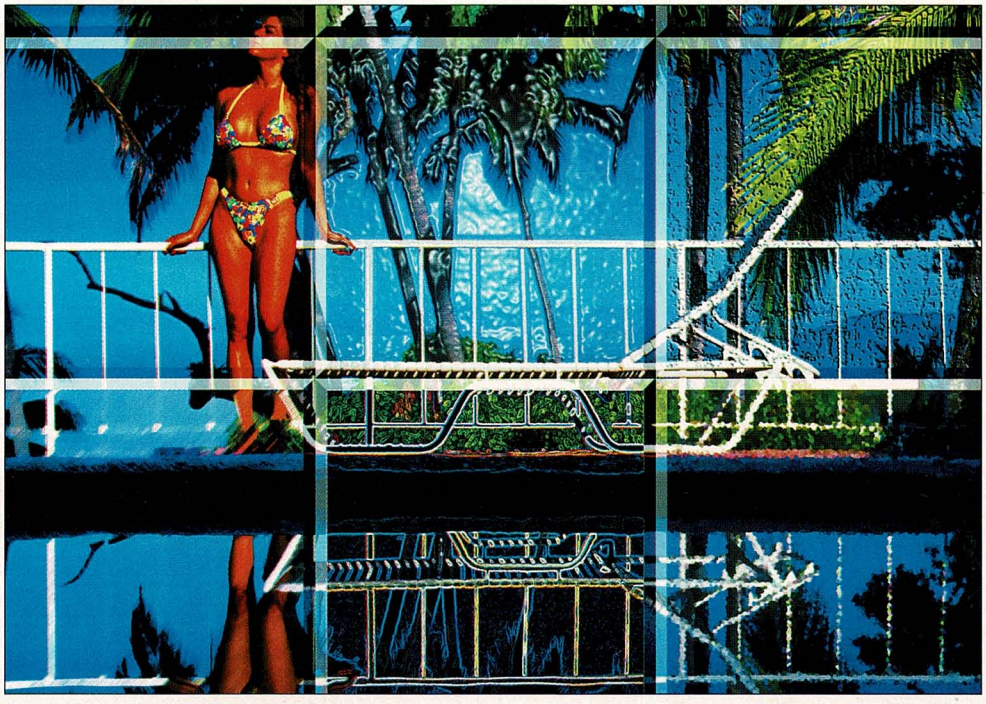
Good ideas worth copying

The open architecture system that plug-ins use is such a good idea that Apple, IBM and a number of other major players in the world of home computing think it is the way all programs should be designed. To this end they have formed an organisation called Component Integration Laboratories to develop a cross platform standard for object oriented applications.

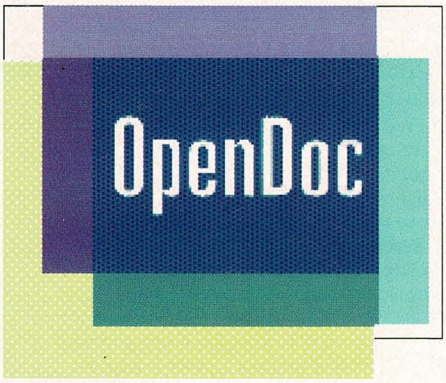
This all sounds very technical, but the end result should be better applications, and easier cross platform exchange of data. The idea of OpenDoc is quite simply to take the emphasis away from the application, and place it on the document you're working on. So instead of repeatedly opening and closing your document, changing which application you are working in, and then re-opening your document, OpenDoc will enable you to keep your document open continually, and open and close application modules around it. For instance, if you were working on a page that required some text, a photograph and some 3D rendering, you'd open your word processor module and enter the text, then you'd close that module, while the document remained open on your Desktop, and open your spell checking module. After spell checking, you'd open your scanning module and scan the photo, close that and open your image-processing/retouching module and make any changes you desired. Then you'd open your page layout module and put it all together in the order you wanted, ready for printing.

The major difference is that you had your document open throughout the

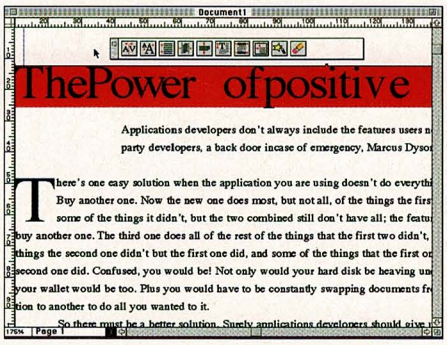
Continued on next page



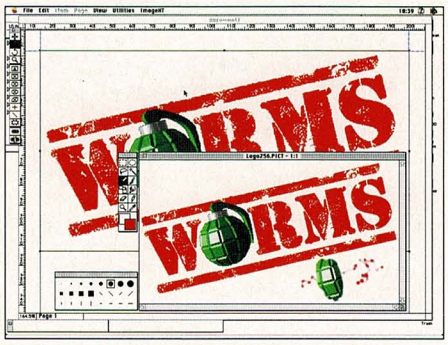
Whatever effect you're after, if your image processing package can accept *Photoshop* plug-ins there's likely to be a filter to do just what you want. Thanks to Adobe's decision to make plug-ins an open standard, many otherwise humble programs can use plug-ins.



With OpenDoc, you won't have to close your document when you want to change to a new application.


Document1
ThePower ofpositive
Applications developers don't always include the features users n
party developers, a back door incase of emergency, Marcus Dyso
There's one easy solution when the application you are using doesn't do everythi
Buy another one. Now the new one does most, but not all, of the things the firs
some of the things it didn't, but the two combined still don't have all; the featu
buy another one. The third one does all of the rest of the things that the first two didn't,
things the second one didn't but the first one did, and some of the things that the first or
second one did. Confused, you would be! Not only would your hard disk be heaving un
your wallet would be too. Plus you would have to be constantly swapping documents fr
tion to another to do all you wanted to it.
So there must be a better solution. Surely applications developers should give
Page 1

The *Style It* XTension places all of *QuarkXPress's* considerable typographic force right at the mouse pointer, even enabling you to select non-continuous blocks of text.



Who needs *Photoshop* when you can paint and retouch images right there in *XPress*? Vorsprung durch Technik, as they tend to say in the car industry...

whole operation and therefore saved time on repeatedly opening and closing applications.

How quickly OpenDoc will be adopted by major software developers remains to be seen. Many of them have justified the constant revisions and increasing prices of their software by arguing that they are including new features. How receptive will they be to ditching all the features that are handled by other manufacturers' modules, and just trading on the unique features of their own software?

In the end, the consumers will have their way. OpenDoc promises as big a revolution in the ease of computer use as did the point and click interface that all Mac users know and love today. If we buy software supporting OpenDoc and leave the rest on the shelves, developers will soon get the message.

Mega extension overkill

So, I'm a power user. I spend my day assisting in the design of computer game packaging, adverts and promotional material, designing interfaces for interactive entertainment experiences, creating htmls and producing multimedia applications. So surely my plug-ins and XTension folders are bulging at the seams trying to contain all the trickery pokery I use in everyday life. Well... yes, at present they are, but that's only because I'm writing this feature. Usually they are pared right down to the bare minimum. But if I'm such a demanding user, why?

While application developers lay down strict programming guidelines for plug-ins, not all of the shareware developers follow these to the letter. Most of the time you'd never know, but just occasionally you will find a couple of plug-ins which clash with one another. Maybe both try and monopolise a machine resource at the same time. This can make your machine crash, meaning you waste more time while you re-start and reload the application (along with all those plug-ins). Now, I'm not trying to paint a black picture of plug-ins – a more wonderful thing I cannot imagine, and 99% of the time they run smoothly. But there are other reasons for exercising restraint with their use.

When a program loads, it has to look at its plug-ins folder to see what extra bits the user has in there – this process takes time. The more plug-ins there are in there, the longer it takes. Many programs load the plug-ins they are going to use right there and then at the start, which takes even more time. Now as a professional user, I don't want to waste (precious) time loading in features and functions that I'm not even going to use that session. More importantly, when a program loads with lots of plug-ins installed, it takes up more of your RAM. And I haven't yet met a user who said they had enough memory!

The tip is, use plug-ins with restraint. Keep the ones you use all the time active all the time, but take steps to control the ones you use less frequently. This doesn't mean that you have to bin them all (but if you do, there are a huge bunch of them on this month's MACFORMAT cover CD for you to re-load when you need them), but it does mean that you should read the box entitled 'Managing those plug-ins' right now to find out how to keep them under control.

XPress XTension XAmples

There are thousands of XTensions and add-in features as disparate as non-contiguous text selection and bitmap image editing for *QuarkXPress*. Most of them are commercial products rather than free or shareware, due to the

PAGEMAKER

The Aldus *PageMaker* DTP package accepts its own add-on format, Additions. These are more like macros, in that they generally enable you to do things that are achievable using the program's built-in features, but makes them far easier.

FREEHAND

The latest release of *FreeHand* (reviewed in MACFORMAT 23) has finally embraced open architecture. But third party developers are already being attracted by the power and flexibility of *FreeHand's* XTras feature. When we went to press there weren't many available, but there'll be lots of *FreeHand* XTras available soon.

MANAGING THOSE PLUG-INS...

Having a lot of plug-ins will expand your creative potential. But having a lot of plug-ins loaded at one time is not necessarily desirable. But there are a number of ways of controlling plug-ins easily and effectively without having to continually shunt them around your hard drive:

XTension Gatekeeper: in my experience, having lots of *QuarkXPress* XTensions loaded simultaneously causes more problems than having (for example) lots of *Photoshop* plug-ins loaded. This is not a reflection on Quark, or the creators of the plug-ins. XTensions actively alter the features and functions of the core program, whereas *Photoshop* plug-ins frequently just sit there waiting to be called upon, at which point they perform a specific mathematical operation on the image data – not really very likely to cause contentions.

Users of *XPress* who have a full XTensions folder would be well advised to take a look at the *XTension Gatekeeper* by Markzware. This superb XTension puts up a requester every time *XPress* loads, which enables you select which XTensions to load and which to miss out.

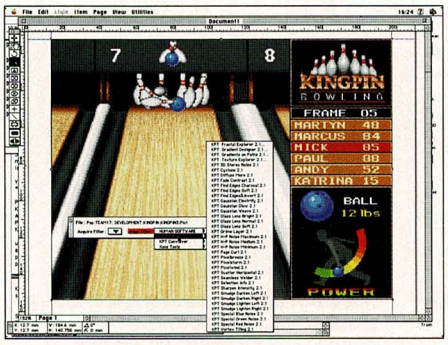
Because going through a long list of XTensions every time can be tedious, *XTension Gatekeeper* lets you define and save sets of XTensions, which you can select from a pull-down menu.

Plug In Manager takes the concept of *XTension Gatekeeper* one step further. Written by Jonas Wallden from Sweden, it does almost exactly the same thing, but it enables users of any program to select which plug-ins/XTensions/Additions/Xtras etc they wish to load. At first I was amazed by this, thinking that the program was multi-open architecture compliant, but in reality it works in a very different way.

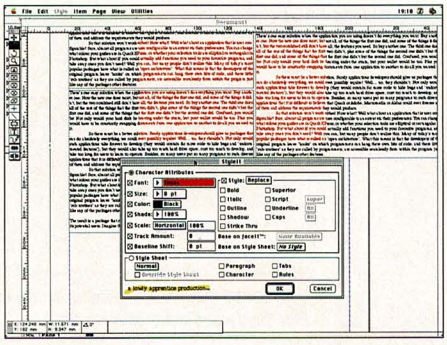
If you use *Plug In Manager* you must keep a separate copy of the program (along with its own set of preferences) for each application you wish to use it with. You then boot the copy of *Plug In Manager* (renamed appropriately), which then offers you the plug-in selection options for that program. Once you've made your choice, *Plug In Manager* launches the application, and only passes the desired plug-ins through to it.

This elegant solution is superb, but it cannot cope with *Photoshop 3.0's* nested plug-ins folder. To use it with *Photoshop*, all your plug-ins must be loose in the plug-ins folder, rather than in their own individual folders. Less elegance in one place for more convenience in another. You choose!

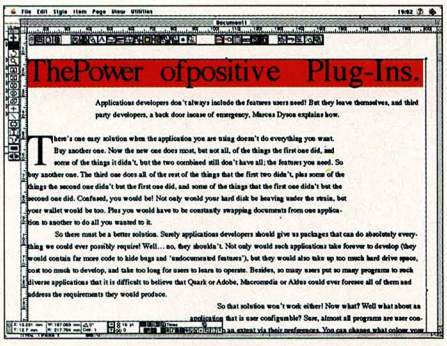
You'll find both of these indispensable utilities and *Plug In Manager* on this month's MACFORMAT CD-ROM and floppy disk.



I'm completely bowled over! Is that *Kai's Power Tools* running in *Quark XPress*? Yes, that's precisely what it is, thanks to a little XTension called *XTSocket*.



That big red block of text was all styled simultaneously using *StyleIt*. Not impressed? Look closely – the red text is in three separate text boxes. It's a miracle!



CommandPad makes all those easy-to-do things in *XPress* even easier to do. No need to go to menus or remember keystrokes! Great if you're terminally lethargic… like me.

program's core market being the professional publishing and design worlds where the cost of the XTensions will be covered by increased productivity. Here are a few of the ones I'd like to have on my machine:

■ *Finger Type* – this XTension from A Lowly Apprentice Productions puts almost all of *XPress*'s powerful typographic functions within a mouse click. The XTension puts up a toolbar, accessible from the **View** menu. By using the icons in this bar, you can kern text by simply clicking on the letter to change and dragging it. Text can be resized, paragraphs can be formatted, drop capitals can be added, and all with a simple mouse click and drag operation. And once a style has been applied to a paragraph, the magic wand tool enables it to be copied to any other paragraph, not just in the same text box, but on separate pages, even in different documents.

For users working with lots of text, this XTension is essential. It's my favourite XTension of all.

■ *Image Editor* – do you work on *XPress* documents with bitmap images? Do you not have enough RAM to run *XPress* and *Photoshop* side by side? Are you completely sick of having to quit *XPress*, open *Photoshop*, edit an image, quit *Photoshop*, boot *XPress* and continue working, only to realise shortly afterwards that you need to do the same thing again? You need *Image Editor*. This invaluable XTension reads the image data, opens a small editing window and lets you make changes right there in *XPress*. Awesome. Especially when combined with *XTSocket*...

■ *XTSocket* – while we're on the subject of editing bitmaps in *QuarkXPress*, how would you like to be able to scan directly into *XPress*, then apply image processing functions to the scanned image? I'd like it a lot, and with *XTSocket*, it's a reality. This XTension from Adept Solutions enables *XPress* to accept *Photoshop* plug-in filters. So you can make those vital image enhancements without having to quit *XPress* and open *Photoshop*.

■ *StyleIt* – when I showed my designer wife this XTension, she went, 'Cute, and it could be of some use.' What! Has she never tabbed a table out neatly, just to decide shortly afterwards that all the items in column two should be bold, and all the ones in column four should be in red type? Obviously not!

Such a situation would have less patient designers (me) tearing their hair out as they had to go through the whole document double clicking on each item and applying the bold or coloured style to it. But no longer. *StyleIt* allows non-contiguous text selection in *XPress*, so a whole column of type can be selected at once.

Better still, it can also simultaneously select type from more than one text box, which offers incredible creative and practical possibilities.

■ *CommandPad* – some document processors have control panels along the top (or side, or bottom) of the screen which enable the user to do mundane tasks like opening a file, or printing, without having to hurtle through menus, or go to the trouble of remembering keyboard shortcuts. *XPress* doesn't have one of these. Not unless you have the *CommandPad* XTension, that is.

Once *CommandPad* is safely in your

Continued on next page

Exercise restraint... don't waste time or RAM loading features you won't use.

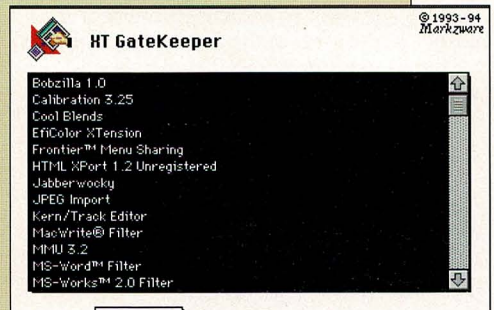
QUARKXPRESS

Quark's DTP package must run a close second to *Photoshop* in the number of third party add-ons available for it. But unlike *Photoshop*, where a large number of these add-ons are free/shareware, *XPress* has mainly commercial XTensions.

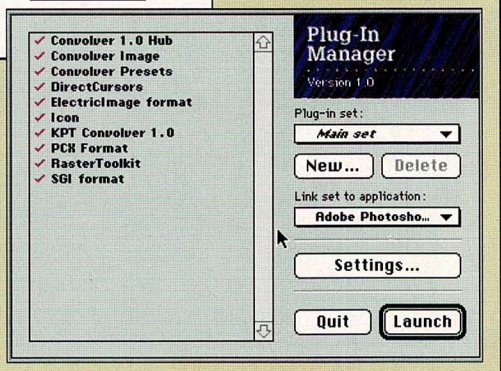
XPOSURE

Excitement rides high in the image processing world as Quark, developers of the worlds best DTP package, are poised to release their first attempt at an image processor. *XPosure* will be compliant with the *Photoshop* plug-in standard.

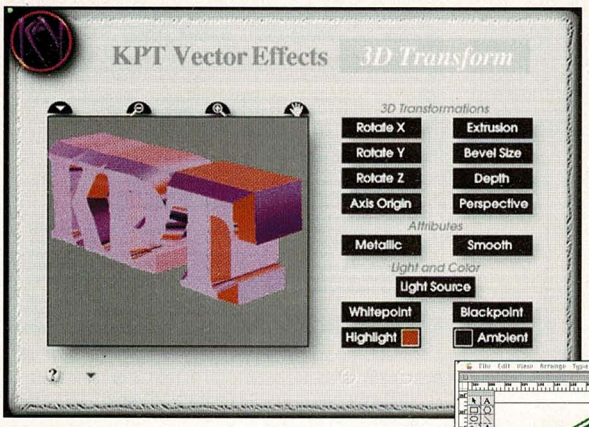
XTension GateKeeper enables you to keep your XTensions tucked away in a pull-down menu, so they're easy to select when you need them.



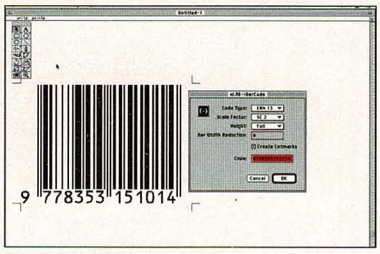
Keep your XTensions in order with *XTension GateKeeper* from Markzware. You can even save pre-configured sets that you can load as a group for specific projects.



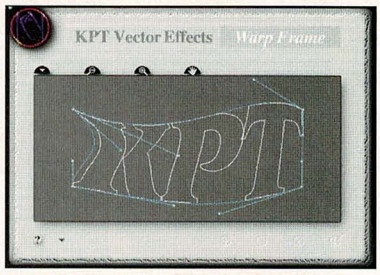
Save RAM with *Plug-In Manager*, and select any kind of filter – plug-ins, XTensions, Additions...



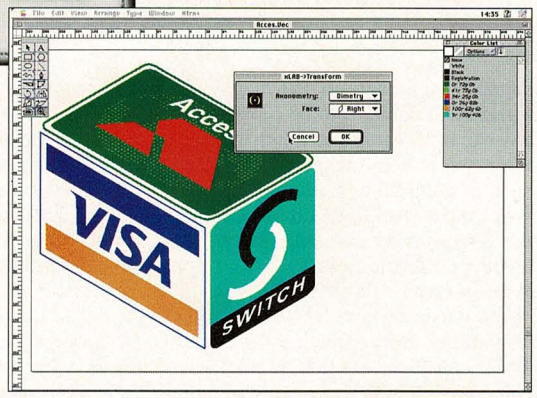
FreeHand and *Illustrator* will be able to produce effects like those of *Dimensions* when coupled with *Vector Effects*.



xLab Bar Code creates bar codes – ideal considering that most packaging design is done in *FreeHand* and *Illustrator* these days.



One of the most annoying things about drawing packages is their inability to handle bezier distortions. *Vector Effects* will solve that.



xLab Transform, a *FreeHand* and *Illustrator* add-on, will be invaluable to packaging designers.

XTensions folder, the next time *XPress* boots, it has this nifty little control panel which lets you do most of the things you want to do at a mouse-click. Combine this with *Finger Type* and you might never have to touch the keyboard ever again.

■ So where can you get these great XTensions? It couldn't be easier. The company XChange International has virtually every *QuarkXPress* XTension ever written in its well presented and comprehensive catalogue. For more details, give them a call on 0171 637 2966 or e-mail them at: xchange@slip.net

XLAB

xLab filters can be obtained from: Kunckel EDV Systeme GmbH in Germany, tel: 00 49 421 162575, fax: 00 49 421 170907, eWorld: wkunckel, CompuServe: 100015,467, or e-mail: wkunckel@kedv.hb.eunet.de

Xtras and plug-ins

HSC Software, the people who gave the world *Kai's Power Tools* and *KPT Convolver* for *Photoshop* are about to release an equally important product for *FreeHand* and *Illustrator* users. *KPT Vector Effects* will automate all those things that structured drawing program users have always found so painfully difficult to do. And it will even add a whole bunch of new features, enabling effects to be obtained that would previously have been impossible from within the confines of *FreeHand* and *Illustrator*.

Not only does *Vector Effects* enable you to produce 3D images like the ones produced by *Adobe Dimensions* or *Add Depth*, but it will also allow freehand distortion of images similar to the effects available in *TypeStyler*, and calculated distortions like twirls and zig-zags. You can contact HSC Software on 0181 744 9912.

Among the first *FreeHand* XTras to hit the streets are the *xLab* series from German developers Kunckel EDV Systeme GmbH. These XTras will work with both *Illustrator* and *FreeHand*, and offer a number of features aimed at the professional design studio.

BarCode does what you would expect, and creates a universal products code like the one on the front of this mag (and virtually everything else you can buy these days). The other filters produce grids, colour tables and crop marks, all time-consuming tasks that designers get sick of doing. But the most exciting *xLab* Xtra is *Transform*, which will take flat images and distort them into the appropriate shape to be used to produce an isometric view of packaging designs. You can contact Kunckel in Germany on 00 49 421 152575 or fax 00 49 421 170907.

SHARING

There's a huge array of XTensions and plug-ins on the MACFORMAT cover disk for you to add to your creative armoury. Many of these plug-ins are shareware. If you intend to use them, then please send the authors the shareware fee – it's also the only way you'll get more of those particular plug-ins or XTensions.

Plug-in, turn on, freak out!

Plug-ins for *Photoshop* (and compatible programs) are plentiful. Commercial and shareware developers have produced loads of filters to either make *Photoshop* capable of opening more file formats or perform image processing tasks on open images. Here are a few of the most desirable and useful:

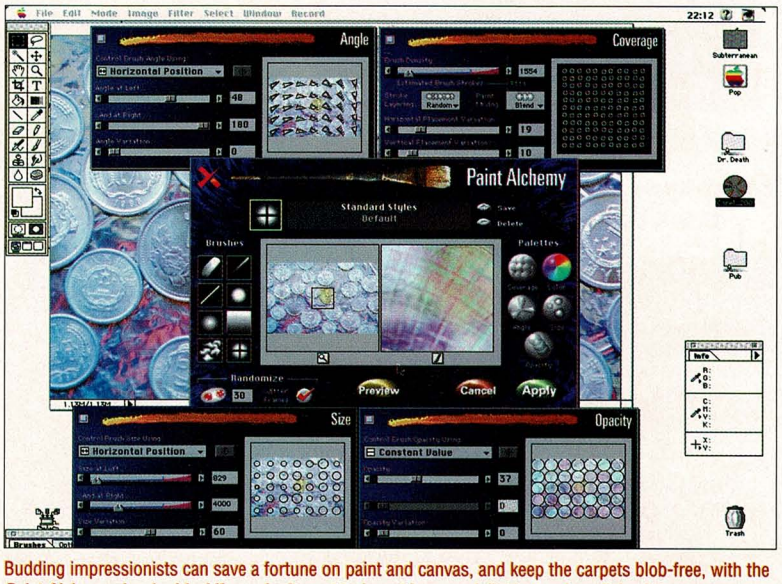
■ *Kai's Power Tools* and *Kai Convolver* – HSC Software 0181 744 9912.

KPT itself is the biggest, most powerful and possibly most useful collection of *Photoshop* plug-ins in the world. *KPT Convolver* is an aid to using some of *Photoshop*'s more difficult to understand image processing features, but it can also add those features to cheaper packages which lack them.

Both packages sport a stunning interface designed by *Photoshop* guru Kai Krause. But they aren't just pretty faces. These packages set the standard for user accessibility too. For more details, see the review of *Convolver* in MACFORMAT 25.

■ *Sucking Fish* filters – on this month's MACFORMAT CD. These superb filters are written by Naoto Arakawa in Japan, and they're mailware, so if you use them and like them, send him an e-mail at: GCA00443@niftyserve.or.jp.

There are six filters in all: *Inai2Bar* is an encryption tool for graphics files; *Magic Curtain* is an image processing filter which applies its effects in a graduated fashion controlled by the user; *Frame Curtain* is similar to *Magic Curtain*, but its effects are applied to the edge of a rectangular selection, making an attractive frame. For me, the jewel in the *Sucking Fish* crown has to be *DeKoBoKo*. It automatically creates that 3D raised button effect that is so popular on the Worldwide Web and in multimedia applications.



Budding impressionists can save a fortune on paint and canvas, and keep the carpets blob-free, with the *Paint Alchemy* plug-in. Ideal if you don't want to invest in a specialist 'natural media' paint program.

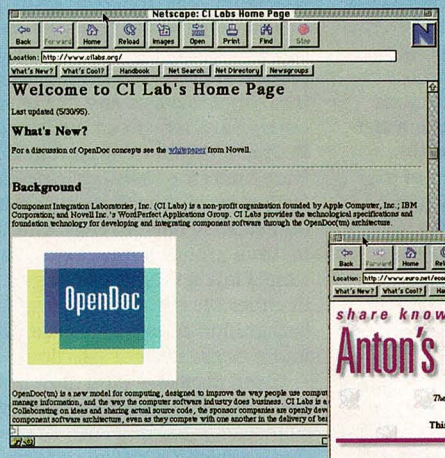
TAPPING INTO THE FILTERNET

A great source of *Photoshop* plug-ins (or filters, as they're also known – it's probably a good idea to search for both terms), *XPress* XTensions and information about *FreeHand* XTras is the Internet. Look up the following URLs if you want to get more plug-ins and plug-ins information:

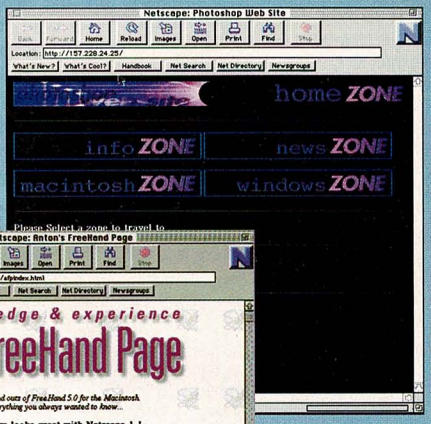
■ *FreeHand's* XTras promise to be a powerful addition to an already very impressive program. Although several companies have XTras in development, so far very few have seen the light of day. You can get up to date information on *FreeHand* XTras, plus tips and other information from 'Anton's *FreeHand* Page': http://www.euro.net/ecompany/afpindex.html

■ Shareware and freeware *Photoshop* filters are available from the *Photoshop* Archive. This month's MACFORMAT cover CD has an up-to-date library of these filters, but watch this URL in coming months for new arrivals: ftp://export.acs.cmu.edu/pub/PSarch/filters-mac/

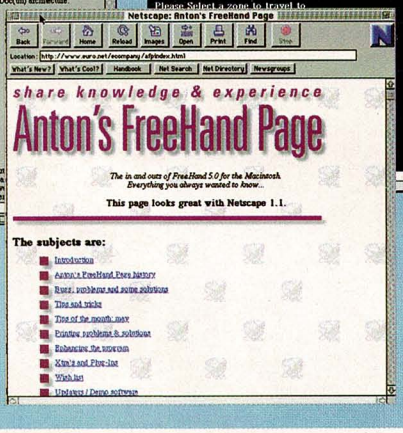
An interesting and informative *Photoshop* home page can be found at: http://m_blair_mac.sunderland.ac.uk.



The Web site for Component Integration Laboratories, who aim to improve applications and make data exchange easier.



Mark Blair's *Photoshop* site at Sunderland University should keep you informed of new *Photoshop* plug-ins, and where to get them.


Netscape: Anton's FreeHand Page
share knowledge & experience
Anton's FreeHand Page
This page looks great with Netscape 1.1.
The subjects are:

'Anton's *FreeHand* Page' has lots of useful hints and tips, plus a list of developers who are producing Xtras, with pictures and addresses.

■ One thing *Photoshop* doesn't have that Fractal Design *Painter* does is quality 'natural media' effects. What this basically means is that although *Photoshop* is a superb image retouching, colour balancing and manipulating package, it's not really all that good at producing images that look like they were drawn or painted and then scanned. Occasionally, that 'natural' look is appropriate for certain images, and for just these occasions, Xaos have created *Paint Alchemy*.

This superb plug-in applies image processing algorithms to your images to make them look like they've been worked on with brushes, or other painting tools. *Paint Alchemy* adds all the randomness of density, colour and stroke direction you need to create a convincing impression of a human created image from any photograph. For more details contact Letraset on 0171 928 7551.

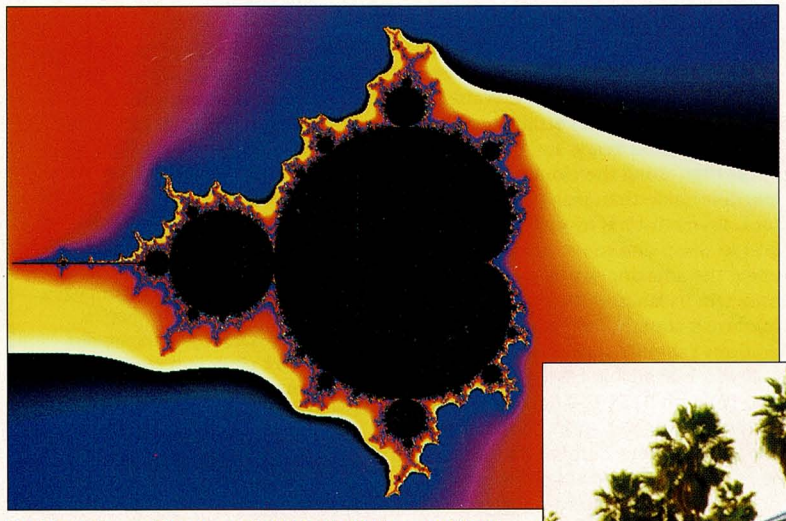
■ Originally published by Aldus, who are now part of Adobe, *Gallery Effects* is another attempt at giving an 'illustrated' feel to photographs. The results are less random than *Paint Alchemy's*, and less convincingly 'natural', but are attractive all the same.

Gallery Effects also doesn't attempt to constrain itself to the realm of painted images, and has a far wider range of possible styles and effects, from 'wrapped in plastic' (really!) to 'torn paper collage'. For the artist using *Photoshop* as an illustration tool, both *Gallery Effects* and *Paint Alchemy* are essential purchases. For more information on *Gallery Effects*, contact

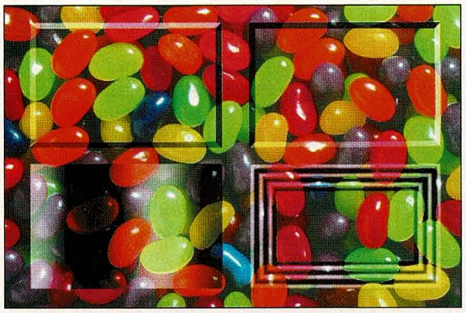
URL?

URL stands for Universal Resource Locator. What's that? It's basically a site on the Internet – yes, that's right, an e-mail address. (I don't know, these techno weenies complicating things unnecessarily...)

Continued on next page



Fractals are fun, and they are easily obtained with the powerful and intuitive Fractal Explorer in *Kai's Power Tools*.



Naoto Arakawa's *Sucking Fish* filters are ideal for anyone making multimedia presentations, or authoring Web pages. This picture shows just a few of the many effects available.

The Page Curl filter in *Kai's Power Tools* is an attractive one, no doubt, but it fails to actually distort the image itself along the axis of the curl, so in effect it is just a translucent graduated tint area.

A QUICK PLUG

Some of the most innovative plug-ins come from KPT, who've given us the wonderful *Kai's Power Tools* and *KPT Convolver*. Watch for a review of the latest software creation from Kai Krause, *KPT Vector Effects*, in MACFORMAT.

Adobe on 0181 606 4000.

■ Also available from Letraset, another Xaos Tools product called *Terrazzo* is a superb tool for creating tiled patterns in *Photoshop* plug-in compliant paint packages. While other tools (most notably *Convolver*) can create seamless textures, no other program can tessellate them in as many ways as this. *Terrazzo* takes a small element of the image and twists and reflects it in a large number of different ways, selected by the user. The results are startling, often reminiscent of wrapping paper, but with creative use they can transform a mundane image into an exceptional one. *Terrazzo* doesn't just create the patterns, it can apply them to your original image, either as a simple translucent overlay or as a procedural apply, to affect the hue, contrast, brightness, or any one of several other characteristics of the image.

■ One of the many shareware/freeware filters for *Photoshop*, *Grid* differs from most of the others in that it has immediately obvious uses. This plug-in, from prolific author Chris Cox, simply lays a user definable grid down, in either the current foreground or background colour, across the entire image or the current selection.

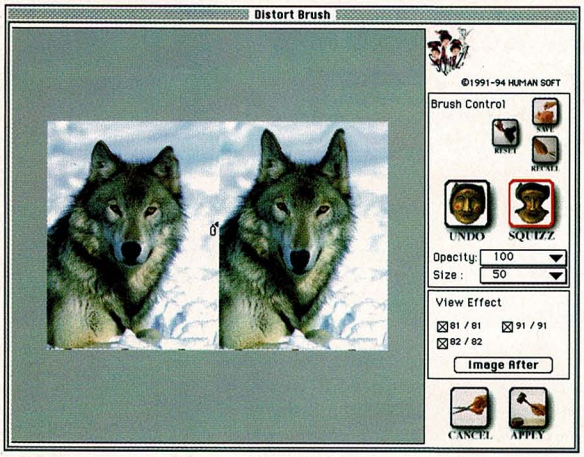
Given *Photoshop* (and most other paint/image processing packages) lack any kind of grid or guides function, this is superb for anyone attempting to align basic picture elements. How I wish I'd had this for the last five years... the time I could have saved!

The Photoshop equivalent of plastic surgery, Squizz can slim waists, straighten noses...

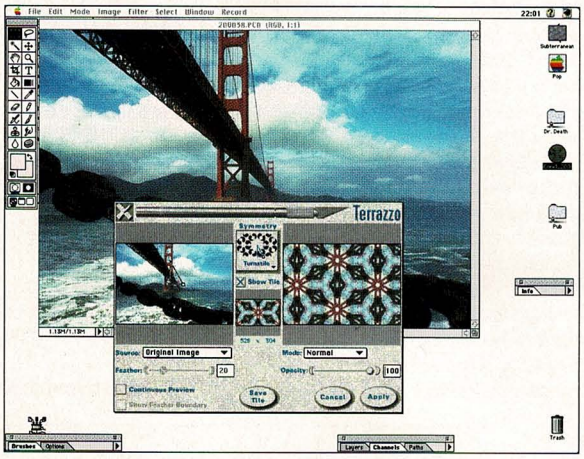
■ This is superb. One of the first plug-ins from The Human Software Company, *Squizz* overcomes *Photoshop's* weak image distortion abilities in a flash. The program enables the user to move sections of an image, or distort the picture globally to achieve some awesome results.

Squizz can be used as the *Photoshop* equivalent of plastic surgery. Waists can be slimmed, noses straightened, jowls smoothed away, and all with less effort than using the clone tool, and less detectable than using the smudge tool. *Squizz* distorts by either using a grid to select and move points, or by using the amazing brush tool. The grid may win its supporters, but I found the brush superb, handling all the operations I require quickly and easily.

Squizz is available from CGS ComputerBild on 0181 679 7307. CGS will be distributing the entire range of The Human Software Company's filters soon – watch for details of this and other new goodies in MACFORMAT! **MF**

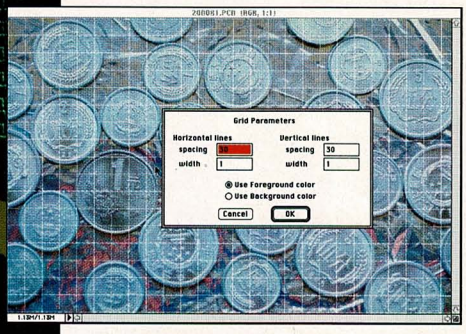


Shock news, plastic surgery for dogs. Not the latest Hollyweird trend, but just a small example of what *Squizz* can do.



Turn mundane pictures into Christmas wrapping paper. *Terrazzo* has other, year round applications too.

Get that 'I drew it myself look' (or that 'I just ripped up a lot of coloured paper and collaged it myself look') with *Gallery Effects*.



Sometimes the simplest things are the best. Take the spoon for instance, a much simpler design than the fork, but ultimately superior for eating soup. So it is with Chris Cox's superb *Grid* filter... but you can't eat soup with that either.

SPECIAL EFFECTS

We've really only just scratched the surface here – there are Plug-ins for doing just about anything you can imagine (yes, including scratching a surface). If you have *Photoshop* or any other Plug-in-compliant programs, here are some of the visual effects that Plug-ins are available to add to your images

- Charcoal drawing.
- Smudging.
- Watercolour.
- Pastel.
- Mosaic.
- Rippled.
- Glowing edges.
- Canvas texture.
- Diffuse glow.
- 3D cube/cylinder/plane/sphere.
- Coloured pencils.
- Crayons on textured paper.
- Tiles.
- Jigsaw.
- Ice cubes.
- Impressionist painting.
- Blobby 'molecular' look.
- Silver/coloured ball bearings.
- Coloured soap bubbles.
- Covered in water droplets.
- Covered in a layer of grime.
- Sharpen edges, invert colours.
- Convex lens.
- Prism.
- Reflection.
- Rippled.
- Motion blur.
- Honeycomb.

In the same way, you can get XTensions for almost anything *QuarkXPress* doesn't already do:

- A pop-up 'Go-to-page' menu.
- A floating palette of all those odd letters such as ¥, ø, ^, π.
- Lock text flow and hyphenation or locate occurrences of text reflow.
- Soft-shadows on text and graphics without image editing.
- Convert spherical picture boxes to custom star and cog shapes.
- Import *WordPerfect* documents into *QuarkXPress* and retain styles.
- Change text boxes' order, and instantly reflow and relink the text.
- Add QuickTime movies to your documents *and* print them.
- Automatically convert your pages into the standard html format for the World Wide Web.
- More control/options to move page elements through layers.
- Create *XPress* grids quickly and easily and lock/unlock grid lines.
- Blend multiple colours.
- Silhouette images.
- Simpler ways to scale pictures.
- Search for and change colours.
- Enable and disable XTensions when launching *XPress*.
- Change your printer without going into the Chooser.
- Attach date, time and name stamps to your documents.
- Copy entire pages between and within documents.

Mac Magic

Specialist Dealers in New and Used Mac's

Apple Authorised Reseller

UK's Largest Trade In Centre

- **Do you want the latest and best technology for your company ?**
- **Do you want to upgrade your peripheral equipment to a higher quality ?**
- **What do you do with your old equipment ?**

Mac Magic for the last 3 years have specialised in a professional great value trade in scheme. We will trade any volumes from 1 to 999 units, Macs, Monitors, Printers, if its for the Mac we will trade it in. Below are just some examples of what we offer.

Trade In	For a New	Price
Quadra 800	PowerMac 8100/110	£2495
Apple 16" Colour Monitor	20" Trinitron Colour Monitor	£899
Apple Laserwriter IINT	Apple Laserwriter 360	£799

With Limited space we can't list all the trade in options however safe to say if it's a Mac or can be used on the Mac we will have a deal for you. Call today for a full written trade in Quotation. You won't be disappointed !!!!!!!!

Attention All Mac Buyers

All the equipment that we trade in is cleaned, tested and re packaged and comes complete with a 6 month warranty which can be extended to 3 years.
We also sell end of line, Ex Demo and Liquidated Stock inc Macs, Monitors, Printers, you name it we supply it. Here are some of the buys of the month on New Equipment, call for our full list today.

Magic Buys of the month (All New Equipment)

2400dpi 24 bit colour scanner FULL Photoshop 3.0.1 ..... £499
A5 Transparency Plate for the above £135
The above scanner is a Tamarack Artiscan inc 2 year Warranty

Dell 17" Colour Monitor inc Mac Adaptor £399
Radius 24X Video Cards Blazing Fast 24 bit colour £445
Ex Demo, Used, Trade in and End of Line PowerMacs, Quadras and Centris ..... £Call

Blast your Mac into the 21st century with XLR8TOR

User Installable, Free BenchMark Software, Lifetime warranty, Low Low Price.
Increase the speed of your 6100 by 50%, 7100 by 36%, and your 8100 by 26%
Special Offer Price of Only £99!!!

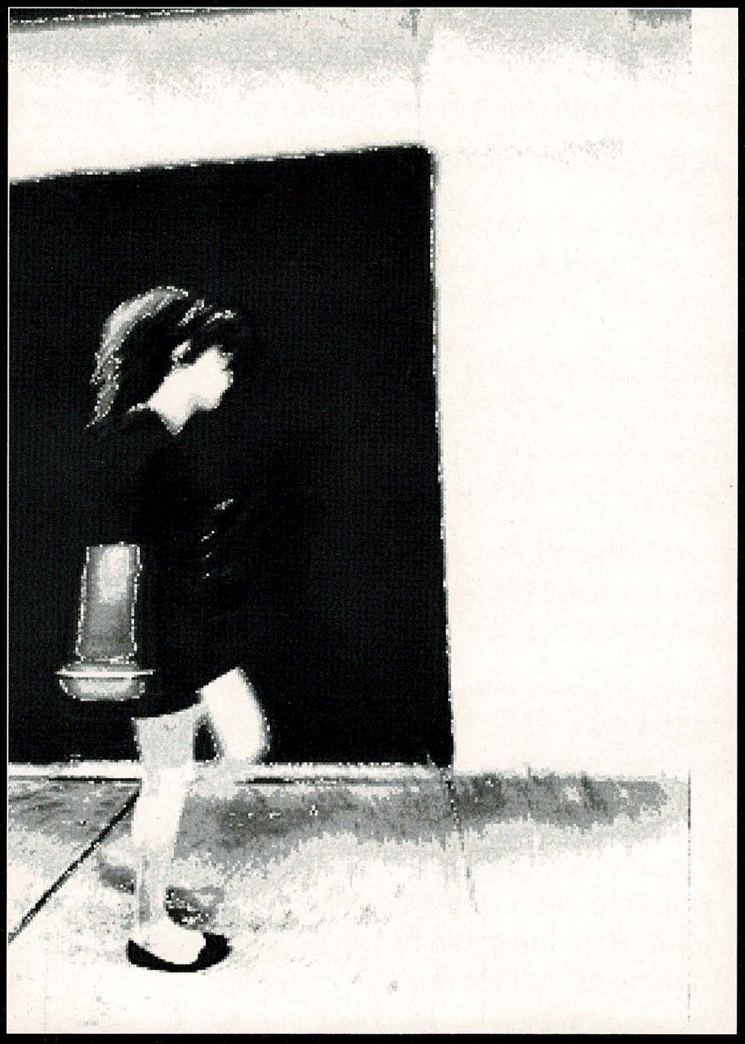
Magic Input Devices at Magic Prices

Extended Keyboard £39
TrackBall Mouse £49
Ergonomic Mouse £19
ADB Mouse £17

Southern Sales: 01793 495000
Northern Sales: 0161 477 9191

Katbox

VOLUME 2



A stunning photo-library of colour and black & white images.
Ready to use, royalty and copyright free.
CD-Rom available now for Mac and PC.
Only £59.95 ACCESS/VISA.

big red hat

MULTIMEDIA NETWORK

Voice call & Fax 01333 352808

Uncovering the X files

The System Folder can seem a foreboding place full of dark secrets, and Extensions can seem to be 'X-files'. Martin Jones takes you inside and explains all.

The Mac is great, and its ease of use is the stuff legends are made of. You simply put the plug in the socket, press the power switch and it goes. However, a little knowledge of the Mac's inner workings goes a long way towards making things work faster and smoother. With that in mind, let's take a guided tour through the Mac Operating System.

Every computer, from the largest mainframe to the smallest notebook, requires a basic set of instructions that tell the chips and circuits how to work. These basic instructions are called an Operating System. They tell the computer how to perform the most basic of tasks, like what to do when you turn on the power.

Apple's Mac runs on an Operating System called MacOS. The latest version is called System 7.5.1. If there was no MacOS, your Mac would just sit there with a blank screen when you turned it on and would be thoroughly unimpressive when you were showing it to your friends.

The MacOS is made up of two major pieces. The first piece is programmed into a set of silicon chips, called ROMs, inside your Mac. ROMs contain basic information such as how to look for the System Folder and load information off disks. ROMs are permanent and cannot be changed without replacing hardware components. However, it is interesting to note that some modern Macs have their ROMs on a removable SIMM, making it easy to change in the future. What is Apple trying to tell us?

The second piece, and the part we're going to focus on, is the System Folder that's probably installed on your hard disk.

You can think of the circuits in your Mac as veins in a vast electronic circulatory system. When you turn on the power, electricity begins coursing through these veins. When the electricity reaches the ROM chips, the true heart of the Mac, the first piece of the Operating System knows to look for the second piece. First it looks at the floppy disk drive. If there is no floppy, or the floppy has no System Folder, it then looks for SCSI devices like hard drives and CD-ROMs.

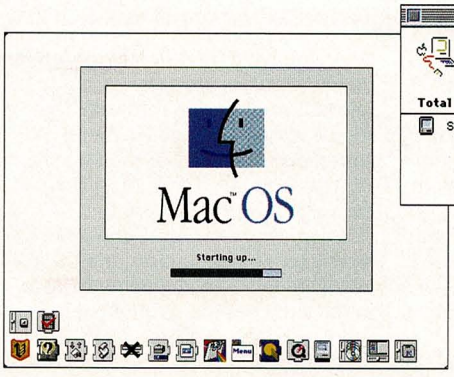
Since SCSI devices have ID numbers (0-7), the Mac starts at the lowest number and works its way up. Most Mac internal hard drives are set to SCSI ID 0, so if there is a System Folder on your internal hard disk, it will stop looking and begin loading the rest of the Operating System from your internal hard drive. If there is no System Folder at SCSI 0, it will continue up the chain 1, 2, and so on, until it finds a System Folder it can use. (By using the **Startup Disk** Control Panel you can specify a different hard disk to boot from.)

If it reaches the end of the chain and still finds no System Folder, it will display an icon of a disk with a flashing question mark. This means, 'Feed me.' It sometimes happens when there is something wrong with your normal System Folder preventing it from loading properly.

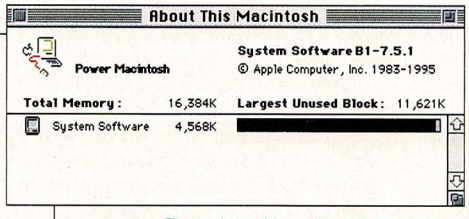
Once your Mac locates a suitable System Folder, it begins reading the System file inside the folder for further instructions. This has an icon shaped like a suitcase. Next it begins loading

Continued on next page

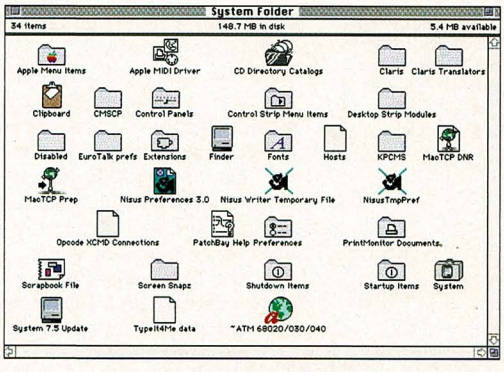
WHO'S HE?
Martin Jones works in technical support in the US and has an extensive knowledge of the Mac.



During startup, many Extensions and Control Panels display their icons across the bottom of the screen. If the Mac freezes during this process, the problem may lie with the last Extension to appear.



The main problem with updating your System software regularly, which is generally a good idea, is that each new version needs more and more RAM!



Everybody's System Folder is as individual as their finger print, and is usually just about as chaotic!

in the files found in the Extensions folder, the Control Panels folder and loose in the System Folder. Finally, once these files are loaded and the Mac is ready to use, it loads the Finder. This puts the Desktop on your screen. Knowing the order that things load can often help locate the problem. This is explained later.

BOOT
Booting is the name given to the process of starting up a computer.

The inside story

What exactly *are* all those files and folders that lurk in the System Folder? Let's open it up and see what's inside.

The first thing you'll notice about System Folders on the Mac is that every one is different. That is one of the wonderful things about the Mac. It's easy to customise it to your needs. However, all Macs start out with a common set of files and these are the files we are going to examine.

If you see files in your System Folder that are not discussed here, those files were probably either installed by one of your other software packages or are very specialised.

We will look at System 7.5.1 as it is the most current System version, but most of the items apply to earlier versions of System 7.

ROM
Read Only Memory. Unlike RAM, which can change the data it stores, ROMs have data 'burned' into their chips which cannot be altered. Part of the System software is stored on ROM.

CD BOOTING
If your Mac came with the System software on CD-ROM, you can force your Mac to boot from the CD by holding down **[command] [shift] [option]** and **[delete]** at startup.

Apple Menu Items

Anyone who has used System 6 probably recalls that adding things to your **Apple** menu was no fun. It required a utility, called the *Font/DA Mover*, to install special programs called Desk Accessories into the System file. Only these Desk Accessories could be installed under the **Apple** menu. Other types of programs had to be opened by the traditional method of finding the program's icon buried several folders deep and double-clicking on it.

Now, with System 7 or later, you can add things to the **Apple** menu simply by dragging the item to the Apple Menu Items folder inside the System Folder, making them easily accessible no matter where you are. You are no longer limited to those special Desk Accessories. The **Apple** menu can contain anything including application programs, documents and folders; just about anything. However, instead of putting the original item in the Apple Menu Items folder, it is a good idea to use an alias instead. Click once on the desired item and select **Make Alias** from the **File** menu.

Extensions

This folder contains small pieces of software that are loaded during startup. Extensions add capabilities to your Mac that have not been built into the core System software. This includes such things as speech recognition and software to make CD-ROM drives or modems work.

Control Panels

This folder contains controls for various features of your Mac which are loaded automatically at start up. Although similar to Extensions, they differ in one respect: they all contain settings that you can alter, be it sound level or simply on/off. Some Control Panels will work when stored anywhere, but it's best to keep them here.

Fonts

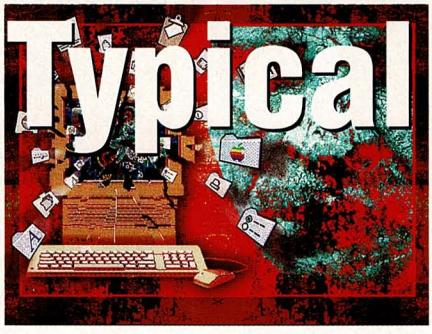
So that all your documents don't look alike, you may choose to create text in different typefaces. These typefaces are defined in special files called fonts. There are three types of font: bitmap, TrueType and PostScript (see page 82). Beginning with System 7.1, all font types are stored in the Fonts folder.

Preferences

Most Control Panels and applications store their custom settings in this folder. Games could store things such as players' high scores.

Startup Items

Anything that is in this folder will be opened when your Mac starts up. It is often a good practice to put an alias of the desired file or application in the folder rather than the original.



problems

EXTERNAL TRICK
If you have a second, external hard drive, install a spare System folder on it. In the event of not being able to boot from the internal drive, your Mac will use the external drive.

Despite the Mac being the easiest computer in the world to use, you can, and probably will, encounter problems with your System software. The first problem you may encounter is your Mac refusing to boot up. Instead of the reassuring Welcome screen, you are presented with a flashing disk and question mark. This means that your Mac has failed to find a System Folder on any disk. If you know that it was there yesterday, and you haven't installed any new hardware or software, then chances are that it has become corrupted in some way. If you have *Norton Utilities* or *MacTools*, then it is probably best to start with them, but if that doesn't solve your problem, you may need to reinstall your System.

If your Mac starts to boot and then stops, you may get a clue as to the problem, depending on when it stopped. If it stops before the Extension icons start to appear at the bottom of the screen, it may mean the System file is corrupted and needs replacing.

If the problem occurs while the Extension and Control Panel icons are appearing at the bottom of the screen, then either one of these is corrupted, or two of them are clashing with each other. Make a note of the last icon to appear as it may be that Extension or Control Panel that's causing the problem, but don't assume it. Some Extensions don't show their icons as they load, and it may be one of those.

Try restarting your Mac with the **[shift]** key held down. This turns all the Extensions and Control Panels off. If your Mac now starts, you know for definite that it's an Extension problem. You can try replacing the offending Extension, but it is more likely to be a clash which needs to be isolated. Reinstalling the System software will probably not help. We will deal with this in part two next month.

If the problem occurs when your Mac tries to draw the Desktop then it is likely that your Finder is corrupted and needs replacing.

If your Mac starts, but crashes periodically, especially when you are in the Desktop, you may have corrupt System software. Start your Mac with Extensions turned off to see if it solves the problem. If your Mac still crashes, you probably have corrupt System software and need to replace it.

There are many other things that can go wrong with your Mac – we dealt with a whole range of them in MACFORMAT 18 and saw that they can be caused by a variety of things. Here, we are going to assume that you have tried all the other solutions you can think of. As a last resort, you will need to reinstall your System software. Here's how.

Reinstalling System software

Once you have tried all other solutions to your troubles, the last resort is to reinstall your System software. This should always be done with a set of Apple's System disks, or the System CD that is supplied with Macs that have a built-in CD-ROM drive.

If you own a Performa and do not have a set of System disks or a CD, now could be a good time to upgrade to the latest version of the System software to get those disks. The latest Performas, the 5200 and 6200, come with a System CD of sorts, but its installer does not work like the regular System installer, and always does a complete reinstall. However, it does

Shutdown Items

This is exactly the same as the Startup Items folder, except that anything in the folder will be launched when you select **Shut Down.**

Clipboard

Whenever you select **Copy** or **Cut** from the **Edit** menu, the selection is saved in RAM in an area called the Clipboard. Double clicking this icon will show you the contents of the Clipboard. Sometimes, a Clipboard file is saved to the hard disk if it is very large.

Finder

The Finder provides the Desktop for your Mac. It is the part of the System software that creates the icons, folders and Wastebasket as well as basic System functions such as copying files, formatting disks and shutting down. This file has to remain loose in the System Folder. If, for some reason, it is separated from the System suitcase file, your Mac will not boot.

System

This is the heart of the Mac Operating System. Its size will vary greatly from one System to another. Remove it and all you'll get is a blinking question mark when you turn on your Mac. It also contains sounds and keyboard layouts. Since the System is made up of hundreds of invisible resources, removing its visible contents will still leave you with a fairly large file.

Scrapbook File

Graphics, text, sounds and movies that were copied into the Scrapbook desk accessory (accessed from the **Apple** menu) are stored here. Unlike the clipboard, you can store as mainy items in the Scrapbook as you like.

Enabler

In the past, any time Apple released a new model Mac, they released a new version of the System software that included support for the new hardware. Beginning with System 7.1, Apple devised a way to make an existing version of the System software work on a new machine, Enablers. For instance, the Performa 5200 has an Enabler so that it can run the existing System 7.5.1.

When a new version of the System software is brought out, it usually has full support for all previous machines, meaning that you no longer need the Enabler – but until that time, don't get rid of the Enabler.

If you have a floppy disk with a System Folder on it, but your Mac refuses to boot from it, you may need to copy your Enabler to the floppy.

Hosts

Stores information used by MacTCP if you use it for networking or connecting to the Internet. It will automatically be recreated in the System Folder if removed.

Launcher Items

Any file or alias put in this folder will appear in the Launcher as a button. Folders (not folder aliases) beginning with the [•] character (press **[option] 8**) will appear at the top of the Launcher as a category button. This must reside loose in the System Folder and can be set up using the **Launcher** Control Panel.

PrintMonitor Documents

When you print with background printing turned on from the Chooser, a file is first saved here, before being sent to the printer. If you shut down during printing, the file remains here until you next start up, at which point it continues to print. Clever, that.

StartupScreen

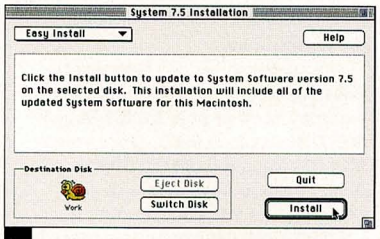
Some graphics programs, can save a file in a special startup format. Name it StartupScreen and place it loose in the System Folder, and it loads as a background screen on startup.

PREFERENCES

If any application is playing up and acting oddly (for instance, a word processor forgetting where its dictionary is), try removing its prefs file from the Preferences folder.

SHUT DOWN

Never turn your Mac off without first selecting **Shut Down** from the **Special** menu. This performs many housekeeping tasks that are important for the safe running of your Mac.


System 7.5 Installation
Easy Install
Help
Click the Install button to update to System Software version 7.5 on the selected disk. This installation will include all of the updated System Software for this Macintosh.
Destination Disk
Work
Eject Disk
Switch Disk
Quit
Install

1 Just doing a standard reinstall won't delete any extras you have added to your System Folder, and may solve your problems.

contain a fully functional System Folder on the CD, so you can drag individual files onto your hard disk, if you only want to replace a few things, rather than doing a complete reinstall.

The reinstallation process can range from reinstalling a single Control Panel to a completely new System Folder, and there are several different tactics to take. These examples are for System 7.5, but the process is similar for all previous versions of System 7.

Tactic 1

Simply do a complete install from the System disks. Insert the first installation disk and double click on the Installer icon. When it has loaded, it always defaults to Easy Install, so just click **Install**. By doing this you 'update' your System Folder. Any Extensions or other software that you lack will be automatically installed, and the Finder and System may be 'tweaked'.

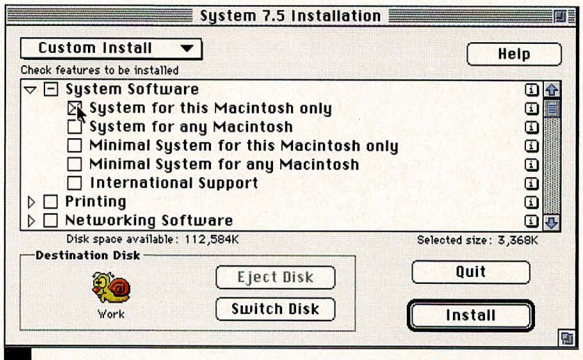
The important thing to realise about this process is that it won't delete anything you have added to the System Folder such as Extensions or Fonts. It doesn't delete your System file and Finder, only updates them. This can often mean that using this tactic will have very little real effect, but at least it's fairly harmless, and so can be a good place to start (see fig. 1).

If your problem lies in the fact that you were lacking something, this may solve the problem. If the problem is that a file is corrupted, though, this process will probably not help and you need tactic 2.

Tactic 2

If your problem seems to be a corrupted Finder or System file you'll need to replace them with completely new ones. Drag them to the bin, but do not empty it. If something goes wrong you may need them again.

Restart your Mac with the first Installation disk. This has a System Folder on it, so your Mac can boot from it. Using the pop-up menu, change **Easy Install** to **Custom Install.** Click the arrow next to **System Software,** check the box next to **System for this Mac**, then click **Install**. This will install a new Finder and System file. Restart your Mac and everything should be fine (see fig. 2).



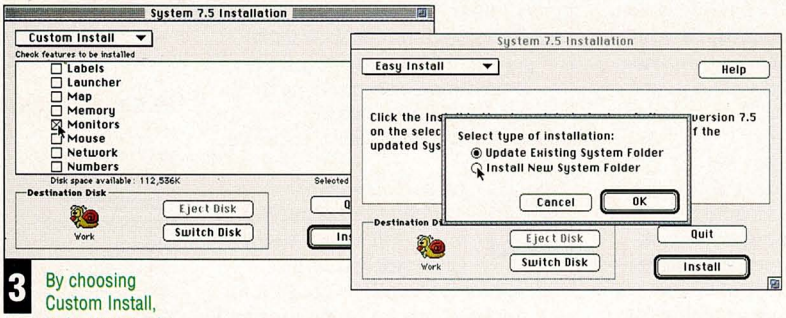
2 Installing brand new System software solves many problems, but can also cause a few.

The only problems you may experience are from software that adds bits to the System file. *RAM Doubler* is one such program, and will need to be reinstalled itself to work properly.

Recently I was faced by a problem with the **Monitors** Control Panel. If I clicked on **Options**, I got the message that there wasn't enough RAM to do that. Since no other software was running, I knew that wasn't true. I spent a long time trying to track down the problem until someone suggested that I replace that Control Panel – it wasn't a problem with the whole computer, just a corrupted Control Panel.

To replace this, I followed the same process as above, but instead of clicking on **System Software,** I clicked on the arrow next to **Control Panels** and

Continued on next page



3 By choosing Custom Install, you can be very precise about what to install.

4 There's a neat trick in System 7.5 that enables you to easily install a second, clean, System Folder.

checked the box next to **Monitors** (see fig. 3 above).

Tactic 3

In the event that a basic System reinstall does not help, you can try a more thorough and complete process known as a clean install. This is how you do it for System 7.1.

Drag the Finder out of the System Folder into the Wastebasket. Rename your System Folder to something else. 'Old System' will do nicely. Restart, booting from your System install disk. From the main install screen, run the easy install, following the instructions on the screen. When installation is complete, restart your Mac.

By removing the Finder and renaming the folder, you hide the original System Folder from the installer, so that it installs a brand new System Folder, containing only the basic System software. Anything you added to your System, such as fonts, screen savers, virus checkers or other utilities, is stored safely in your old System Folder and can be copied over later.

First you should make sure the problem you were having no longer occurs. If it doesn't, you can begin moving items from the Old System folder to the new System Folder. Move only the items that do not already exist in the new System folder. It is also recommended that you move items over in small groups, restarting and using the Mac between each group. This will help you to locate the cause of the original problem.

Clean Install for System 7.5

Realising that people often have to go through this hassle to do a clean reinstall, Apple have considerately built the feature into their installation disks for System 7.5. You just need to know where to look!

First of all, boot your Mac with the System 7.5 install disk, and at the main install screen, hold down the **[command]** and **[shift]** keys and type the letter **K**. This will bring up a dialogue on your screen asking you what type of install you want to perform (see fig. 4).

Click the button that says **Install new System Folder** and click **OK**. You'll notice now that the **Install** button has changed to say **Clean Install**. Click the **Clean Install** button and follow the instructions on the screen. When the installation is complete, restart your Mac. Job done! **MF**

NEXT MONTH

In part two next month, we show you exactly what all those Extensions and Control Panels do. We'll tell you which ones you can delete, how to optimise your Mac's performance, and how to stop Extension clashes.

DISK UTILITIES

The disk utility packages mentioned in the text are available from the following outlet at the prices stated below.

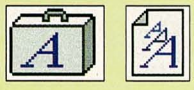
MacTools
Price: £99
Norton Utilities
Price: £109

For details of both programs contact Symantec on 01628 776343.

FONTS

The Fonts folder is a marvellous idea that was introduced with System 7.1. It keeps all your fonts together in one place. However, if you open the folder, you may find a bewildering array of icons. This is what they all are:

PostScript fonts are confusing because there is no single icon to denote them, but here are three of the most common. These fonts only work with PostScript printers, usually lasers, and will not work with most inkjets, such as the StyleWriter. In order to appear properly on screen, they need a screen bitmap font. However, even if the font looks jagged on screen, it should always print smoothly.



TrueType fonts have all the advantages of PostScript fonts, in that they can be scaled to any size and maintain their quality, but also work on any printers, including inkjets.

They should be kept in the suitcase they came with, although they may well work even if removed. You may well also find some bitmap screen fonts in the same suitcase. These are less important than the bitmaps that come with PostScript fonts, but can help to give the best quality on screen, although TrueType fonts will print happily without them.

Bitmap fonts are designed for screen use only, and although they will print out, they appear jagged. In coordination with PostScript and TrueType fonts, the bitmaps are used for the screen, but the PostScript or TrueType font is used for printing.

Bitmap fonts should be kept in the suitcase they came with, but they'll probably still work if dragged outside.

FLOPPY BOOT

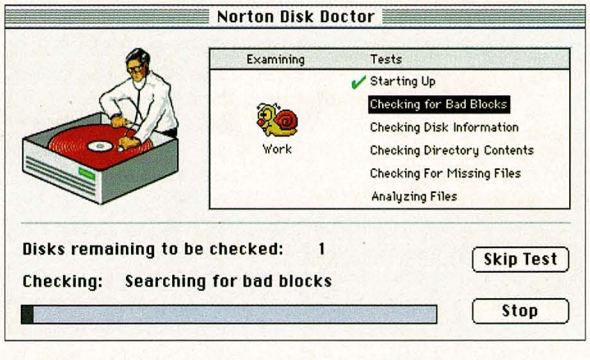
Any Macs can currently be started from a single high density floppy disk. All you need on the disk is a System File, the Finder, and an Enabler, if it's required.

However, if you try copying the System and Finder from your hard disk onto a floppy, you'll find that they are way too big. It has been quite a while since the days when they were small enough to fit onto a floppy disk.

But if your System installation disks did come on floppies rather than a CD-ROM, you will have a floppy named Disk Tools. You should always make backups of your System disks, but you might want to make two backups of this disk because it is so crucial! This is the reason why...

If something serious happens to your Mac, especially the hard disk, you may need to boot from a floppy, and Disk Tools is ideal. Once your Mac has booted from the floppy disk, you will have access to your hard disk, so you can examine it.

Disk Tools also contains a program called *Disk First Aid*. This is a very basic disk repair utility in the line of *Norton Utilities* and *MacTools*. You can try using this to mend your hard disk, and if you are lucky it will solve your problems. However, it is no substitute for a dedicated disk repair program, and often it may give you scary warnings about your disk which are nothing you need worry about.



One of the first programs you should invest in for your Mac is either *Norton Utilities* or *MacTools*. They solve a multitude of problems, even bad blocks...

GASTEINER

MACINTOSH POWER.P.C

•6100/66 8/350 CD	£1323
•6100/60 8/250 CD, Dos Card & 8Mb	£1620
•7100/80 8/700 CD	£2106
•7100/80 8/700 CD AV	£2214
•8100/100 16/700 CD	£2889
•8100/100 16/1Gb CD AV	£3159
•8100/110 16/2Gb CD	£3996
•8100/110 16/2Gb CD & 20" Display	£5238

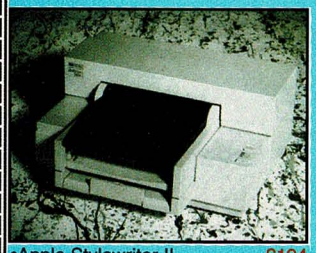
MACINTOSH PERFORMA

•5200 8/500	£1239
•5200 12/500 CD TV	£1513
•62008/500PlusCD 15" &keyboard	£1369
•630 4/250 14" & Keyboard	£875
•630 8/350 CDVinTVPlus&Keyboard	£1132
•630 8/250 CD 15" & Keyboard	£1001
•630 8/350 CDVinTV+15"&Keyboard	£1251

MACINTOSH POWERBOOK

•150 4/120	£724
•150 4/120 & Mercury Modem	£978
•520 4/240	£1167
•520c 4/240	£1718
•520c 12/320 & Modem	£2230
•540c 4/320	£2732
•540c 15/500 & Modem	£3338
•Duo 280c 4/320	£2185
•Duo 280c 12/320 & Modem	£2538

MACINTOSH PRINTERS



•Apple Stylewriter II	£194
•Apple Colour Stylewriter	£367
•Apple Laserwriter 320	£617
•Epson Stylus Colour	£350
•HP Deskwriter 320+ASF	£190
•HP Deskwriter 540	£221
•HP Deskwriter 660	£309

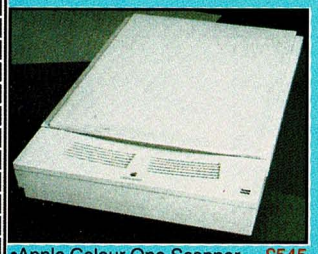
MACINTOSH MONITORS

•Samsung 15" Multisync	£253
•Samsung 17" Multisync	£473
•Apple 15" Multiscan	PHONE
•Apple 17" Multiscan	PHONE
•Apple 20" Multiscan	PHONE
•Hitachi 17MVX Value	PHONE
•Hitachi 17MVX Plus	PHONE
•NEC Multisync 4E	PHONE
•NEC Multisync 5E	PHONE
•Sony CPD-15	PHONE
•Sony CPD-1730	PHONE

GASTEINER HARD-DRIVES

•540 Mb (Internal)	£155
•730 Mb (Internal)	£169
•1080Mb (Internal)	£350
•2160Mb (Internal)	£701
•540 Mb (External)	£219
•730 Mb (External)	£229
•1080Mb (External)	£419
•2160Mb (External)	£776

MACINTOSH SCANNERS



•Apple Colour One Scanner	£545
•Apple One Scanner	£430
•Microtek Scanmaker II	£466
•Microtek Scanmaker III	£2027
•Gasteiner Artec Scanner	£449
•Epson GTI6500	£603
•Epson GTI8500	£742
•Epson GTI9000	£854

GASTEINER POWER-MODEMS

Internal Powerbook 14.4k Fax/Data Modem	£149
External Macintosh 14.4k Fax/Data Modem	£117
External Macintosh 28.8k Fax/Data Modem	£215

all modems supplied with fax/data software these modems are not BABT approved.

MEMORY

•1Mb (30 pin) SIMM	£26
•2Mb (30 pin) SIMM	£53
•4Mb (30 pin) SIMM	£87
•4Mb (72 pin) SIMM	£96
•8Mb (72 pin) SIMM	£195
•16Mb (72 pin) SIMM	£319
•32Mb (72 pin) SIMM	£629

APPLE AUTHORISED RESELLER

SWITCH DELTA VISA Access MasterCard AMERICAN EXPRESS

DELIVERY CHARGES

PLEASE ADD VAT ON ALL ITEMS. SMALL CONSUMABLES AND SOFTWARE ITEMS UNDER THE VALUE OF £59 PLEASE ADD £3.50 P&P. OTHER ITEMS EXCEPT LASERS, NEXT DAY COURIER SERVICE £10 PER BOX. OFFSHORE AND HIGHLANDS, PLEASE CALL FOR A QUOTATION. IN ADDITION WE OFFER THE FOLLOWING EXPRESS SERVICES: SATURDAY DELIVERY NORMAL RATE PLUS £15 PER BOX, MORNING, NEXT DAY NORMAL RATE PLUS £10 PER BOX, E&OE. PRICES SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. ALL TRADEMARKS ACKNOWLEDGED.

HOW TO ORDER

WHEN ORDERING BY TELEPHONE PLEASE QUOTE YOUR CREDIT CARD NUMBER FOLLOWED BY THE EXPIRY DATE AND ALSO YOUR FULL NAME AND ADDRESS. IF PAYING BY CHEQUE PLEASE MAKE IT PAYABLE TO GASTEINER TECHNOLOGY. IN ANY CORRESPONDENCE PLEASE QUOTE A PHONE NUMBER AND ALSO A POSTAL CODE. PLEASE ALLOW FIVE WORKING DAYS FOR CHEQUE CLEARANCE.

126 FORE STREET, UPPER EDMONTON, LONDON, N18 2XA
TEL: 0181-345-6000 FAX: 0181-345-6868

Building a database

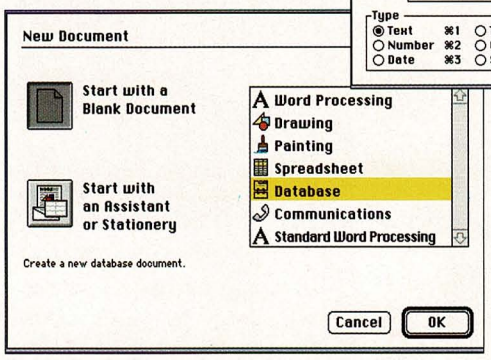
In last month's MACFORMAT we took a look at database basics. This issue John Lewis explains how you can build a database in three different systems.

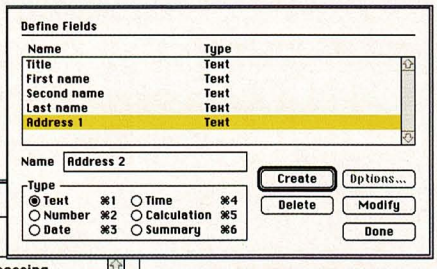
FLAT-FILE

In a flat-file database all the data itself and the information about how it is organised is held on one file. For general data management tasks a flat-file database is ideal.

Last month we introduced you to the basics of databases and saw how *QuickDex* can provide a simple free-form flat-file database. This time around we'll show you how a similar database can be built using *ClarisWorks*, *FileMaker* and also *Helix Express*. Unlike *QuickDex*, these are not free-form programs, so you have to define the fields you'll need from the very start.

To keep things simple, we'll only record Title, First Name, Second name or initials, Last name, Address 1, Ad-



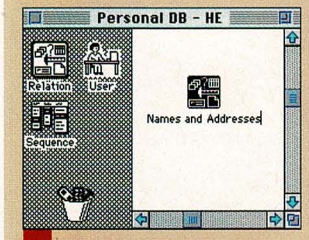


ClarisWorks provides an extremely user-friendly, self-explanatory field creation box. Just enter the name of the field and click on **Create**.

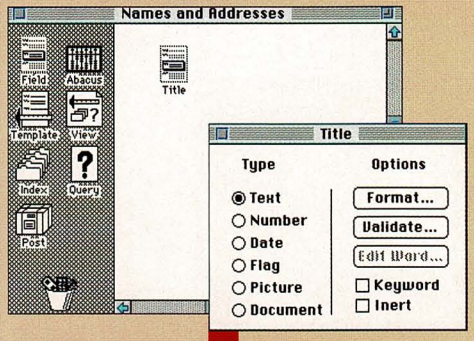
Time to face a new mental challenge – create a new database in *ClarisWorks*. Select **Database** on the **New Document** screen and click on **OK**!

ALL ABOARD THE HELIX EXPRESS

Helix Express is slightly more complicated than either *ClarisWorks* or *FileMaker* since it is a relational database. This means you have to begin by setting up not just the fields but the relations between them. It's not as daunting as it sounds, though...

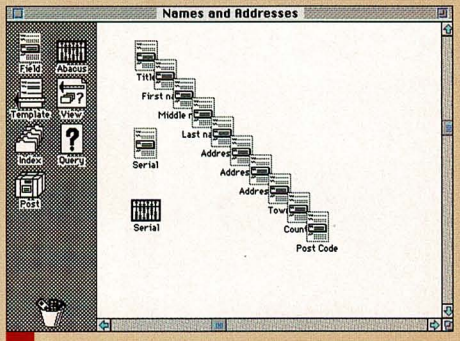


1 First create a Relation within a new Collection. This is simply done by dragging a Relation icon from the 'icon well' into the working area and then naming it. There can be numerous Relations in a single Collection and each of these Relations can pass data to and from the other Relations in that Collection; but Collections themselves cannot interact.



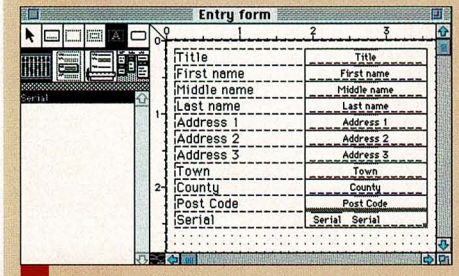
2 Once you have a Relation, double-click to 'open' it and show the working area for it. Down the left hand side of the screen are a number of icons. The Field icons are used to create fields – again you simply drag a field icon from its well into the working area. If you need more Fields, you can drag them in, or duplicate the original field using **[command] [D]** and then change the name.

3 To define the Field's type of data, double-click the Field icon and select the option needed. **Format** enables you to produce pop-up menus, set the number of decimal places, decide how dates appear and so on. If the Field is defined as a keyword, then every word in that field is indexed, making searches very quick. An **Inert** field is one that isn't saved when you hit **[Enter]**; we'll look at **Validate** later.

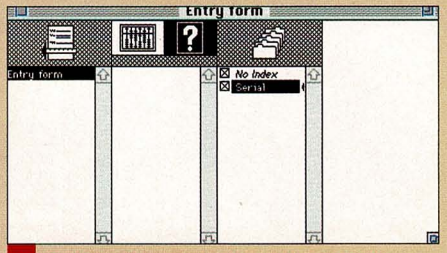


4 To sequentially number the records as you enter them, add a Serial field and set it to Number with no decimal places. To number automatically, the program performs a calculation needing an Abacus – the calculation element within *Helix*. Drag one from the Abacus well and name it. You want to add 1 to the highest value of the serial number in the database – if there are 16 records, the next record will be 17. If it's a new database with no records, the serial number might be undefined and we will force it to become 1.

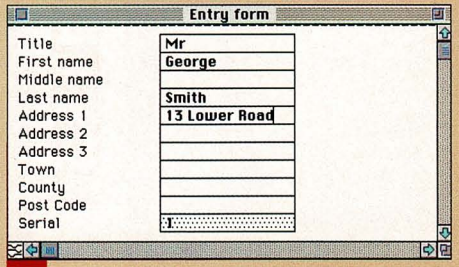
Databases vary in how they handle fields with nothing in them. Calculations may give the wrong answer if an undefined field doesn't return 0 as its value. Allow for this, as we've done, or force an entry to be made – even if it is 0. This could be a use for Validation.



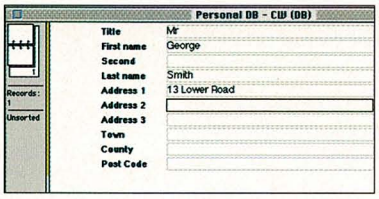
8 All is complete except for producing the entry form. First you produce a template with the required fields on it and then a View to look at this template. By now you'll have got the idea – drag a Template and a View icon across; open the Template, choose **Quick Entry** from the **Edit** menu and the fields and their labels are done for you. If you prefer, drag the fields into place yourself – either way you can rearrange them and alter the font style.



9 The Entry Form needs to be tied to a particular Template and Index – you do this by highlighting the ones you require. The centre column is used to select a particular search query so the entry form only shows the records you're interested in. We've also dragged the serial Abacus icon into the serial field. The Abacus numbers the records in sequence, and dragging the icon into this field means that when you press **[Enter]** that number will be taken into the field and retained with that record.



10 Open the View icon, select the Template and Index you wish to use, go to the **View** menu and select **Form** and there you are. The entry form looks very much like those in *ClarisWorks* or *FileMaker* and you enter the data in exactly the same way by tabbing between fields. When you're finished with a record, hit **[Enter]** to enter it and move on to a new, empty, record.



Bet you wish you'd created a few less fields – now you've got to enter all the information.

dress 2, Address 3, Town, County and Post Code to start with. If you do want more fields for your own particular uses – say phone number or personal details – there's no problem: with all these programs you can add fields on the fly. Unlike some other programs, you don't need to recompile the database before you can continue to use it.

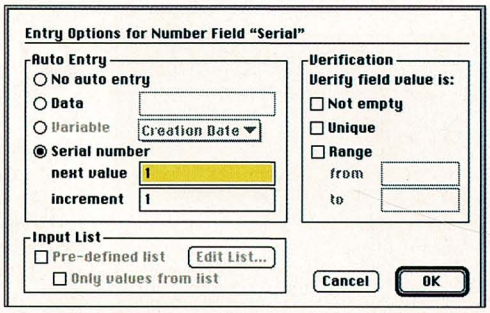
Field of dreams

Let's begin with *ClarisWorks*. Open a new *ClarisWorks* database, and you are presented with the Field Creation dialogue box. Enter the name of the field and click on **Create**. (All the fields we're using this time are text fields, so you don't need to bother with other options for the moment.) Continue this procedure until all the fields have been entered, then click on **Done** and the dialogue box will disappear, leaving an **Entry Form** on the screen ready for you to enter data.

To move to another record, just press **[command] R** or go to the **Edit** menu and select **New Record**. If you want to learn more about what you can do and how to go about it, just turn the page for our step-by-step guide to mail merging using *ClarisWorks*.

Using *FileMaker* is similar – you can immediately see the family likeness. Again you first create the fields, and once that's done an entry form is ready for use.

Helix Express is slightly more complicated because it is relational – see the box below for how it works. But with any of these programs, don't worry about making mistakes – we all do it! The thing to remember is that you won't damage your Mac and if you don't like something, trash it and start again. However, once you have got something useful make sure you back it up. This is vital once you go live with real data – the consequences of losing a database could be catastrophic. But that's something to worry about another day. **MF**



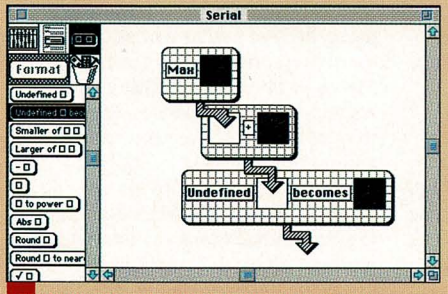
This screen can save you time by automatically entering repetitive information in fields.

RECORDS

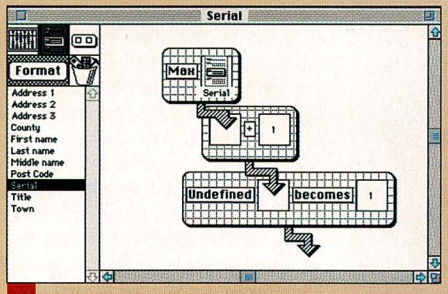
All database documents are made up of records. Records consist of a series of fields. A Record means the complete set of information stored on a single 'record card'.

FIELDS

Fields make up records and they can be defined to hold different kinds of information – text in any format, numbers, amounts of money, or just about anything you like.

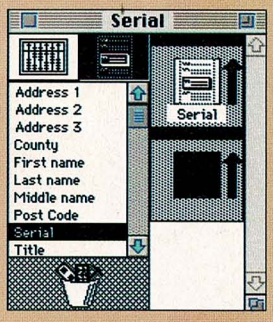


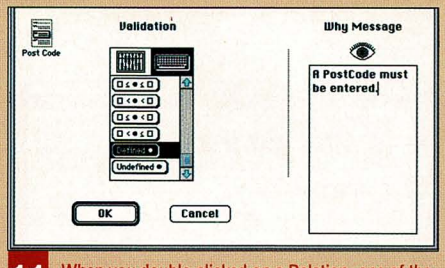
5 Now you need to tell *Helix* how to do the job. Double-click on an Abacus you've dragged in, and another window opens. Down the left hand side are a whole list of different functions ranging from simple arithmetical ones, through logical operators and text manipulation to trig ratios, financial calculations and the ability to look things up in other relations.



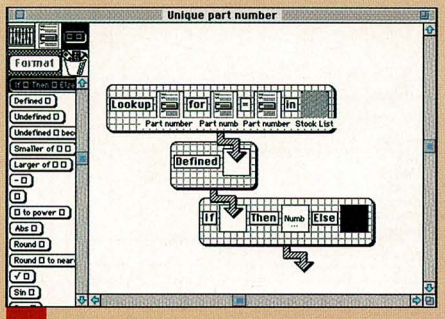
6 **To ensure that things run smoothly, it is best to create an index of the serial number by dragging an Index icon over, opening it and putting the Serial field into the top hole. Unlike *FileMaker* or *ClarisWorks* where you have to change the Sort order, in *Helix* you can define a particular index and refer to it whenever you require. Note that *Helix* will tell you if it thinks performance would be improved by creating an index.**

7 In this case the **Max**, **Plus** and **Undefined becomes** 'tiles', as they are called, have been dragged across, and the Abacus is constructed by putting the output arrow from one tile into the input 'black hole' of another. Black holes can contain Fields, Abacuses and values, and it is just a question of entering the right ones in the right place. This is a typical *Helix* calculation – no code, just a flowchart of the process you want to achieve – and it takes a lot longer to describe than to do.

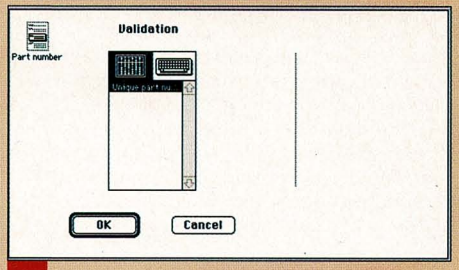




11 When you double-clicked on a Relation, one of the options was **Validate**. This means you can verify a field to ensure that it contains a value, that it is unique or that the data entered has values which fall within a certain range. This can be useful if you want to ensure, for example, that every address has a Post Code. To do this you double-click on the Post Code field icon and then on the **Validate** button to show the validation procedure. In this case you want the **Defined** option. Enter an error message in the right hand box and if anyone using your database attempts to enter a record without a Post Code, the Mac will beep. If the user now selects **Why** from the **Apple** menu, your message will be displayed.



12 You may also want to ensure that an entry can't be the same as another. To do this, you create an Abacus using the **Lookup** tile to search the other existing records for a matching entry. In the black hole on the far right, you double-click to select the Relation you want to search within (it could be the same or a different one). In the far left hole you click and select the field you want to look up – in this case a part number. The middle two holes contain the matching links between the two relations – here we want to make sure that a new part number is not equal to another part number. If the search finds that the part number already exists, the **Lookup** tile will return not a blank, but the **Then** value – in this case a message.



13 You now need to tie this **Lookup** validation to the relevant Field. Again you must press the **Validation** button, but instead of using the keyboard validation we are using an Abacus check. Validating data is very important and can save a lot of time and heartache later. It is easy to mis-key entries – like typing in one zero too many. If, for example, you're a shopkeeper and the maximum priced item you have is £100, then it would be worthwhile having a validation that queries any price entered that's more than £100. To prevent errors, you could require users to choose the correct item from a predefined list rather than type in data. Other things to watch out for are too many spaces – some typists tend to rattle off loads of spaces in strange places; others will hit the **[Return]** key instead of the **[Tab]** key to go to the next record. In a professional database you need to filter these out using the different text manipulation functions. Another feature you can include is an audit trail to show when a record was created, modified and by who.

Merging Notes

Mail Merge is one of the lesser known, yet more useful functions of *ClarisWorks*. Garrick Webster explains what it is, what it does and how you can use it.

Sure, you've seen the words 'Mail Merge' hanging there near the bottom of the File menu in *ClarisWorks*, but what do they really mean? No? Well let me explain. Mail Merge is the facility within *ClarisWorks* that links its database module with its word processor. In short, it enables you to select specific bits of information from the records in your database that can then be put to use within text documents.

This is great if, for instance, you want to do a mail shoot to all the potential customers of your small business or the members of the local club you're running. Instead of painstakingly typing in the name and address of each recipient, you can set up Mail Merge to get this information from your database and insert it for you automatically. Although the text of the letter you're sending out may be exactly the same in each case, at least the people getting them will be addressed by name rather than 'Dear Customer' or 'Dear Squash Club Member'. What's more, depending upon the sophistication of your database, you can include as much individual specific information as you like (such as how much money they currently owe you and when their subs are due!). If you want to target only certain people in certain categories in your database, this is also possible.

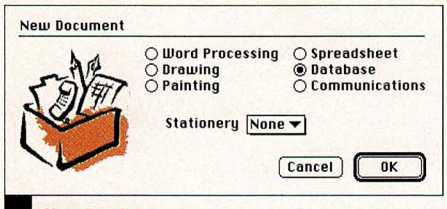
Sounds pretty useful, doesn't it? As an example of how Mail Merge could be useful to you, we've made up a lobbying firm and demonstrate how such an entity might use Mail Merge to do its work. This firm targets imaginary MPs from a make-believe parliament and sends them pressurising letters using Mail Merge to hit them according to their respective political parties, the region they're from and their interests – among other things.

Mail Merge gets information from your database and inserts it automatically.

We show you how to set up your database, define the fields and enter the data. From there we illustrate the merge itself; then show you how to insert the database details directly onto the letter page. Plus a few other tricks of the trade. In fact, it seems a shame to waste all this on imaginary MPs.

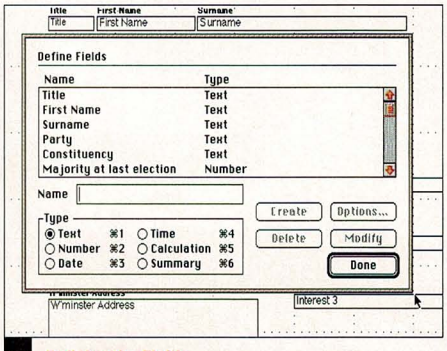
TOP TIP

For faster entry set up drop menus that appear when certain fields are selected. So, in the title category, the field can automatically produce a menu with Mr, Mrs, Ms and Dr options. To set up such a menu, click the **Options** button while defining a field, then select **Pre-defined list** and click the **Edit list** button. You can now enter the choices to appear in that field's drop menu.



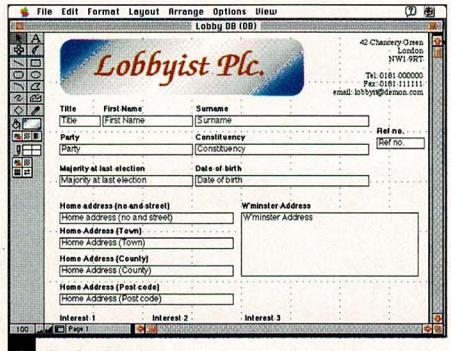
1 Your Database

It seems obvious, but before you can do any mail merging you need a sound database to work from. This means you have to decide what kind of information you're going to store. This, in turn, comes down to what fields you decide to include in your database. Fields are boxes containing information, be it text, numbers, dates or even sums based on other fields. For an effective database, you need to make the right decisions as to what fields it will contain. So, open a database and away we go.



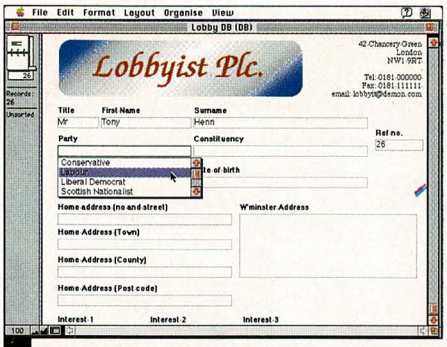
2 Defining the Fields

Typically there will be fields for first names, surnames, titles, addresses and so on. Just what you put in is up to you, but it's always best to start off with as many fields as possible. Our lobbyists keep tabs on MPs' titles, names, their constituencies, constituency majorities, ages, Westminster addresses, home addresses, political parties and range of interests. When you've got a good idea of what fields to include, select **Define Fields** beneath the **Layout** menu and create fields to your heart's content.



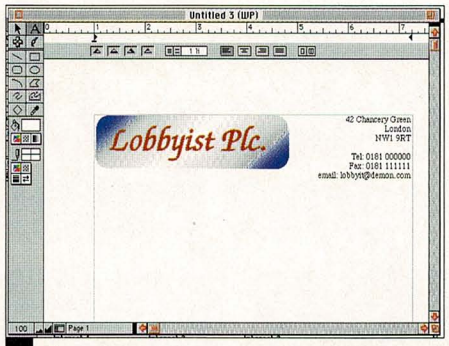
3 Laying it out

When you think you've created all the fields you need, you're left with a very basic template of what each record – or individual entry – is going to look like. To tidy this up, select the **Layout** command under the **Layout** menu and you'll have all the draw tools and functions to make your records look as pretty as can be. You can change the shapes and sizes of all the data fields (they don't all need to be just one line long) and you can style all the text and make fancy letterheads, shapes and colours to boot.



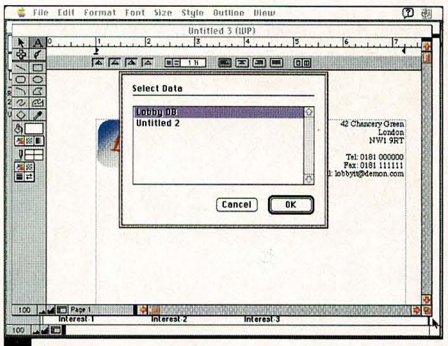
4 Entering data

Of course, for more sophisticated databases, you're going to need more than one layout style. If you're running a cash flow database for instance, you'll need secondary layouts for invoices and receipts. Each layout, however, will be based on your original and will contain some, most or all of the fields you have defined. When entering data, it's usually best to do so on your main layout where all the fields are represented. So, here goes... we type in the names, addresses, parties and so on for our fictional MPs.



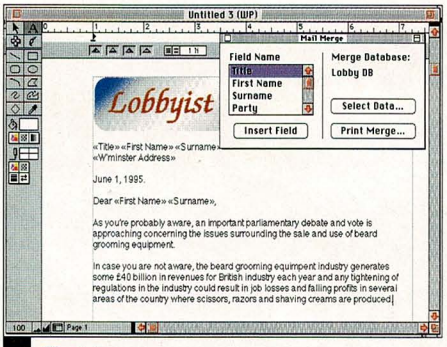
5 Doing a merge

When you are ready to perform a Mail Merge, open up your database document. Then, open a word processing document. This can be either be brand new document, or it can be the stationery you use for your organisation or group if you wish. Naturally enough, the lobbyists have their own stunningly designed letterhead as stationery. But now is the time to mail merge and this is initiated by choosing **Mail Merge** under the **File** menu from the word processing document you've just opened.



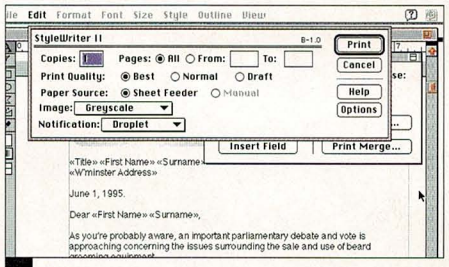
6 The merge continues

Immediately after selecting **Mail Merge**, you'll get a dialogue box showing the titles of any database documents you've got open at the time. You may just have one, but if you've got a few databases on the run at once, select the one you want to use for this particular mail shoot. In the case of our lobbyists, funnily enough it's the Lobby database. Once this is done, you can type in the message you're going to send out, or choose what fields of data are going to go onto the respective letters.


Untitled 3 (WP)
Mail Merge
Field Name
Title
First Name
Surname
Party
Merge Database:
Lobby DB
Select Data...
Insert Field
Print Merge...
Lobbyist
«Title» «First Name» «Surname»
«W'minster Address»
June 1, 1995.
Dear «First Name» «Surname»,
As you're probably aware, an important parliamentary debate and vote is approaching concerning the issues surrounding the sale and use of beard grooming equipment.
In case you are not aware, the beard grooming equipment industry generates some £40 billion in revenues for British industry each year and any tightening of regulations in the industry could result in job losses and falling profits in several areas of the country where scissors, razors and shaving creams are produced.

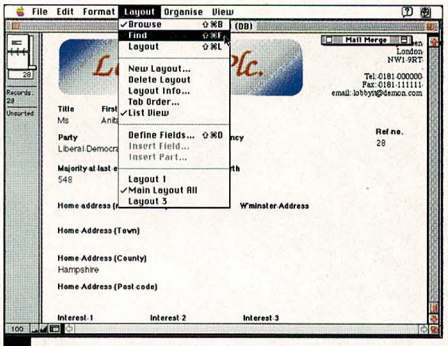
7 The letter

To insert the information that's going to come straight from your database onto the letter page, simply select the relevant field name from the Mail Merge on-screen panel then click the **Insert Field** button. The field name will appear in marks like this: <<Field Name>>. When you print, however, the actual data from that field will appear in the appropriate space and the funny marks will no longer be present. Be extra careful to leave spaces between the field names you are putting onto the page if they are appearing side-by-side to keep the page tidy.



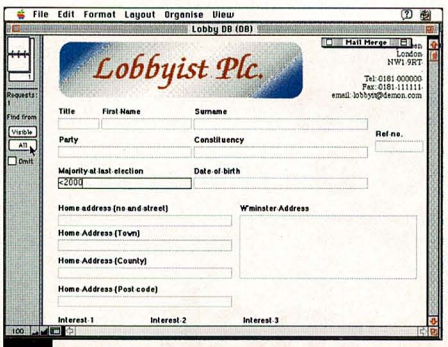
8 Printing

Here we've got a letter generally informing the imaginary MPs of the importance of the beard grooming equipment industry. When we're ready to print, we just click the **Print Merge**... button on the **Mail Merge** panel, which will still be on the screen. The usual printer dialogue box comes up with the options and we're away. Our MPs had better look out, they're about to be lobbied. Once you've hit **Print**, your printer will start spewing out letters to everyone in the database. If you have a big listing for the mail shoot, remember to load up with paper beforehand!



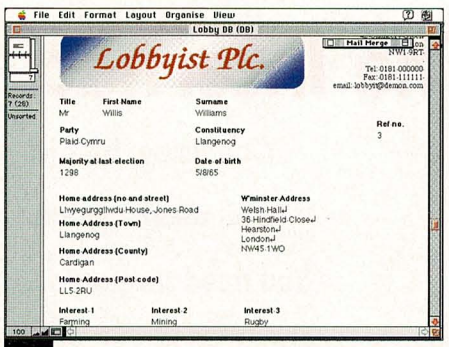
9 What if?

That's just fine and dandy, but what if you only want to send letters to a smaller selection of people in the database? This lobbying firm, for instance, may only want to hit members of the Labour Party, or they may want to add emphasis by sending only to those MPs with slim majorities. Equally, they may want to elicit support from MPs with interests in particular fields. Fear not, lobbyists, there is a way of narrowing down your database and Mail Merge so you only send out to specific individuals. To do this, use the **Find** command under the **Layout** menu.



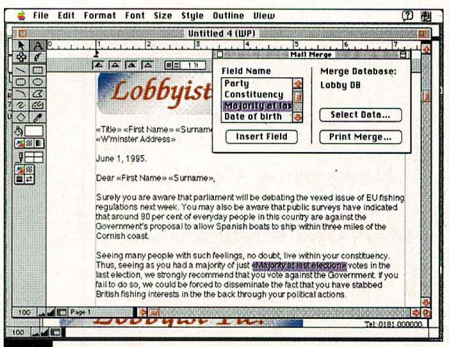
10 Target them

We could target all the MPs interested in the fishing industry. We could hit those living in Hampshire. Instead, let's turn the screw on those MPs with majorities of less than 2,000 votes. Having selected **Find**, we're going to set the parameters of our search. In this case, we'll go to the 'Majority at last election' field and enter **<2000**. Then, click on the **All** button to find all records where the 'Majority...' field holds a value of less than 2,000. The wheel turns as the Mac searches through the records.



11 Hey presto!

Before too long, our Find has come up with seven records for MPs having majorities of fewer than 2,000. From here, we could do another Find and introduce new criteria – for instance we could narrow it down further to all MPs with fishing interests *and* majorities under 2,000. The Find procedure would be the same, except now you'd hit the **Visible** button rather than **All** to search only the records you've already found. (Of course, you could have narrowed it thus far in your first Find anyway.)


Untitled 4 (WP)
Mail Merge
Field Name
Party
Constituency
Majority at last
Date of birth
Merge Database:
Lobby DB
Select Data...
Insert Field
Print Merge...
Lobbyist
«Title» «First Name» «Surname»
«W'minster Address»
June 1, 1995.
Dear «First Name» «Surname»,
Surely you are aware that parliament will be debating the vexed issue of EU fishing regulations next week. You may also be aware that public surveys have indicated that around 80 per cent of everyday people in this country are against the Government's proposal to allow Spanish boats to ship within three miles of the Cornish coast.
Seeing many people with such feelings, no doubt, live within your constituency. Thus, seeing as you had a majority of just [redacted] votes in the last election, we strongly recommend that you vote against the Government. If you fail to do so, we could be forced to disseminate the fact that you have stabbed British fishing interests in the the back through your political actions.

12 Merge again

Having brought forward all the records concerning our target group, we can open another stationery document and script a new letter specific to these MPs. We can even mention the specific low number of votes they won by in the last election if we wish by inserting 'Majority at last election' into the text from the on-screen Mail Merge panel. When the letter is written, hit **Print** again and get ready to hit your target group. Don't forget, you can print your envelopes in exactly the same fashion. Easy, wasn't it?

olitics Gopher Entertainment FT
E-mail Music World-Wide Web A
omedy Magazines Outdoors Nat
hopping Sex Culture Useless Politics
nvironment Usenet Fashion Celebrities Jo
TP Books Hobbies Education Sport Foo
hilosophy Relationships Religion Tastele
ravel Health Society Games Technology
omputing Nature Science Magazines Drin
E-mail Music World-Wide Web Arts Food
Comedy Magazines Outdoors Nature Jo
hopping Sex Culture Useless Politics Se
Environment Usenet Fashion Celebrities
TP Books Hobbies Education Sport Trav
hilosophy Relationships Religion Tastele
ravel Health Society Games Technology
omputing Nature Science Magazines Drin

From the makers of .net the internet magazine

IN ISSUE ONE...

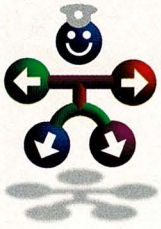
Music
Conspiracy Theory
Sex
Newsgroup Confessions
Drugs
Star Trek Rogues Gallery
Sex
Religious Loonies
Art
Sex
Paul Morley on Net Culture
Nigel Floyd on Net Movies
Over 1000 sites featured and rated

The Internet.

Confusing, isn't it?

You need a guide.

You need *the* guide...



The .net Directory.

Thursday, 27th July
http://www.futurenet.co.uk/index.html

Future Publishing
Your guarantee of value

Price wars

Buying a new Mac? *HyperCard* could help you calculate the bill. Rod Lawton shows how to isolate costs, hide unwanted characters and make your code modular.

You may not think this very exciting, but I'm buying a new Macintosh. This is a rare event for me – having the money, that is, not wanting to buy a new Mac.

However, most Macs aren't sold as bundles – you have mix and match CPUs, RAM, hard disks, monitors and so on. And this makes it a rather confusing and time-consuming job. It's all a question of permutations and combinations, backs of envelopes and headache pills.

I decided that the answer was a *HyperCard* stack that did the following:

1. Listed all the various component parts, together with their prices;
2. Enabled me to select any one of these and transfer it on to a 'shopping list';
3. Automatically totalled up this shopping list as I went along.

Easy. Well, reasonably easy. Writing the code that would transfer a line of text from one field to another was easy, and it went something like this:

```
on mouseup
  put the number of lines ¬
  in field "shopping list" ¬
  into listno
  get word 2 of the clickline
  put line it of me into ¬
  line listno+1 of field ¬
  "shopping list"
end mouseup
```

This is the script of the field containing all the Mac hardware under the sun. When you click on a line in this field, the script (i) checks how many lines have been used in the 'shopping list' field, (ii) gets the number of the line you just clicked on and (iii) copies the clicked-on line onto the end of the shopping list.

Find *TotalIt!* on this month's MACFORMAT cover disks

That was the basis of the stack – being able to select items from a list. However, it needed some other bells and whistles too... the result was *TotalIt!*, and the techniques needed to make it work slickly illustrate some rather useful HyperTalk techniques.

Finding the right words

My main requirement was that I should be able to type an item into the main list on a single line – including the price. This would make it easier to read, easier to lay out the screen and easier to edit later.

So far so good. But this would also mean that the script I wrote to total up the goods on my shopping list would have to separate out the price from the rest of the line.

Well, thanks to HyperTalk, that's pretty easy. Provided I made sure the price was the last thing on each line, and that it was separated from the rest of the line by a space, HyperTalk would count it as a word. What's more, it would be that line's last word.

Since you can 'get' the number of words on any line, it's easy to 'get' the last word with the following:

```
get the number of words in ¬
line 3
get word it of line 3
```

This can be squeezed into one statement as follows:

```
get word (the number of ¬
words in line 3) of line 3
```

If you used that in a script it would work fine. However, HyperTalk has a quicker way of doing it – using the 'last' keyword. This code can be rewritten simply as:

```
get last word of line 3
```

Anyway, that sorted out the problem of extracting the price from a line containing lots of other information too. This made it possible to write a 'repeat' structure that went through every line in the shopping list, totalling up the

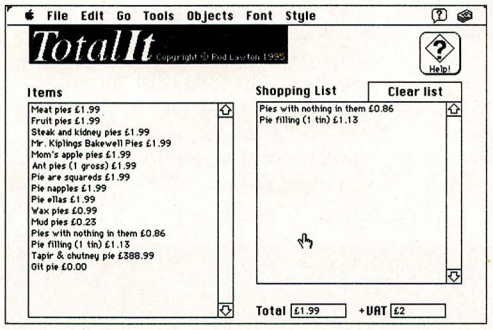
ON AND ON...

The symbol '¬' in the scripts on these two pages means that the text should run as a continuous line.

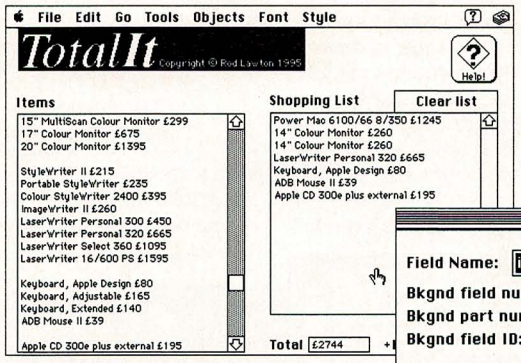
DECIMAL POINT

Although *HyperCard's* 'round' function only rounds to whole integers, you can cheat. To round to two decimal places, for example, multiply your number by 100, 'round' it, then divide by 100 again.

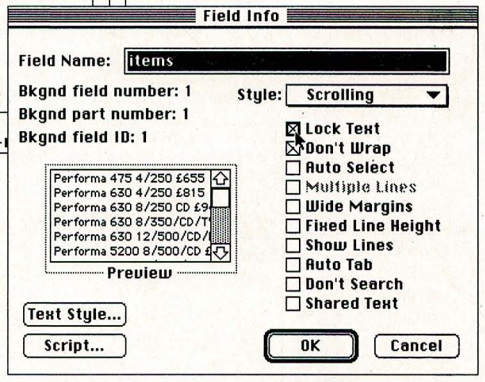
Continued on next page



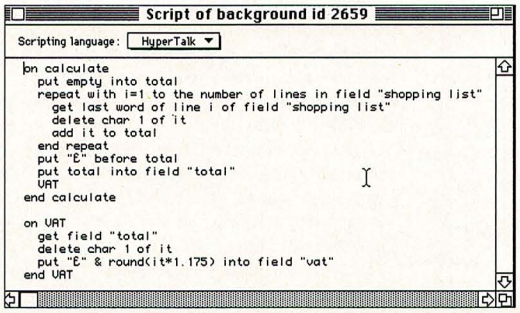
You can create as many different lists in *TotalIt* as you like. Simply create a new card for each list. Just make sure the price is separated from the rest of the line by a space.



This list was assembled to help me choose a new Mac – remember, always check the ads in MACFORMAT for the latest and best prices.



To create a new list of items, first unlock the 'items' field, type in your list of items, then lock the field again.


Script of background id 2659
Scripting language: HyperTalk
on calculate
put empty into total
repeat with i=1 to the number of lines in field "shopping list"
get last word of line i of field "shopping list"
delete char 1 of it
add it to total
end repeat
put "£" before total
put total into field "total"
VAT
end calculate
on VAT
get field "total"
delete char 1 of it
put "£" & round(it*1.175) into field "vat"
end VAT

If you need to add VAT to your shopping list items, here's how to add a VAT sub-routine to the 'calculate' routine in the background script.

prices and putting the final figure into a 'total' field at the bottom.

But it wasn't quite slick enough. Being a bit of a perfectionist, I wanted the prices to begin with the £ symbol. But *HyperCard* would count the £ sign as part of the word and throw a fit when asked to total these words.

Now you see it...

Well, this wasn't too hard to fix either. The beauty of *HyperCard* is that the values you see and display aren't necessarily those that you carry out calculations with. In MACFORMAT 24 we saw how the '*JobsWorth*' stack appeared to be locating files simply from their name, whereas in reality it was using that name to refer to the full pathname (which it also stored – invisibly), which it then used to find the file. Until you knew how it worked, *HyperCard* appeared to be doing something impossible.

This is a similar situation, but the problem and the solution are a little more modest:

When it's time to total up the prices in your shopping list, the relevant script 'gets' each price. It then takes away the first character – the £ sign – before adding it to the running total. Then, at the end, a £ sign is put before the total figure, which is inserted into the 'total' field. Sneaky, but effective.

Things were looking good. My stack could store a big list of items, you could click on any one of these to transfer it to a 'shopping list', and you could then total up the prices in this shopping list.

It still wasn't quite slick enough, though. I wanted the list totalled automatically every time I added an item. That would be easy enough – I could just add the totalling routine to the script that transferred items to the list. But I also wanted to be able to delete items from the list. I wrote a script that deleted a line when you clicked on it – that was easy enough – but of course we'd want the total re-calculated automatically afterwards. In addition, I created a button that would clear the whole shopping list for when I wanted to start again. Another easy job, but another situation where the total would need recalculating.

One solution would be to include the re-calculation routine in every script that affected the contents of the shopping list. But this would mean duplicating the code in three different places – more, if I added further features that modified the shopping list.

The solution was to make use of HyperTalk's hierarchical message structure. All commands pass through the current card and then that card's background. I could put the re-calculation routine in the card's script and refer to it in each script with a single line. In the event, I put it in the background script, in case I wanted to add new cards in future. This is the basic re-calculation script:

```
on calculate
  put empty into total
  repeat with i=1 to the ¬
  number of lines in field ¬
  "shopping list"
    get last word of line i ¬
    of field "shopping list"
    delete char 1 of it
    add it to total
  end repeat
  put "£" before total
  put total into field "total"
end calculate
```

All that was needed now was to add the line,

```
calculate
```

at the end of each of the scripts that affected the shopping list field to call this subroutine and re-total the shopping list accordingly.

In the event, I added some more code that would be able to calculate VAT and put a VAT-inclusive total into a new field as well – which is useful if you need to calculate VAT separately.

It's that easy

With a good working knowledge of HyperTalk, the ability to think laterally, and being prepared to use quick and dirty solutions to get the job done, you can make *HyperCard* do almost anything you want it to. It's great to use because it offers so many ways to disguise, fiddle with, manipulate, translate and transfer information.

For example, *TotalIt!* demonstrates that data doesn't have to be entered using rigid, specific forms. Provided that you can find it and extract it – and *HyperCard* offers all the tools you need – you can work with it. Although data has to be in a certain form before you can process it, you can 'display' it in all sorts of forms – just use a conversion process between the displayed value and the processed one, or use two sets of data 'linked', but the real one hidden (see *JobsWorth* in issue 24 of MACFORMAT).

As for *TotalIt!*, it's possible to use the stack for absolutely any sort of shopping list. If you want to know how much your grocery bill is going to come to even before you leave the house, you can create a master list of groceries and prices, click on all the items you need on that particular day, and there's the total cost! You could even print it out to take to Tesco with you. You'd have to be a very sad and strange sort of person to want to, but you could do it... **MF**

PRICES

The hardware prices shown in these screenshots are from one of MACFORMAT's biggest advertisers – if you shop around you may do better. Please don't bother calling us to tell us so! Remember, when you're shopping for kit, MACFORMAT is the place to look for the best prices...

NEXT MONTH

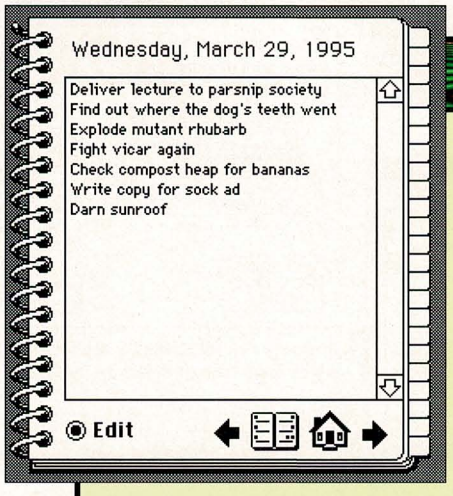
HyperCard 2.3? Don't ask. It's definitely going to happen, and we do know quite a lot about it, but extracting any meaningful information from Apple at the moment is tricky – they appear to have invested rather more heavily in voicemail than PR... (he observes, bitterly). As soon as we get our hands on the software, the long-awaited *SuperCard* vs *HyperCard* head-to-head will be on!

HYPERTALK MYSTERIES

Why do you have to manually compact stacks to close up empty spaces left behind by editing and other fiddling about? I don't know. Why shouldn't you just include the following handler in your stack scripts?

```
on closestack
  domenu Compact Stack
end closestack
```

I don't know. And if the above handler doesn't do any harm and keeps your stacks neat, why isn't this built into *HyperCard* so you don't have to do it manually? I don't know.



Some readers wrote in to say their copy of *DiaList* didn't work. I tried mine at home and that doesn't work now, either! I'll endeavour to sort out this bizarre bug...

PROBLEMS WITH DIALIST?

HyperCard is normally one of the most stable Mac applications you can get. So I was a bit worried when I received a fax from one of MACFORMAT's readers saying that *DiaList* came over all strange on his PowerMac and then it wouldn't quit.

I was even more worried when another reader couldn't get *DiaList* working properly at all on his Performa 630 – both the stack and the standalone kept on crashing.

So I tried my copy at home. This is the stack that didn't crash once while I was developing it both on a Classic and a Centris 610. Now it crashes.

So my apologies indeed for this. Strange things do sometimes happen with the standalones, but *HyperCard* stacks – in my experience – crash once in a blue moon. I'll try to get *DiaList* working again and include it on a future coverdisk. Meanwhile, I'd be pleased to hear from other people who it crashes on and even more pleased to hear from people who have a working copy! Fax to 'DiaList problems', MACFORMAT, on 01225 446019 or write to 'DiaList problems', MACFORMAT, 30 Monmouth Street, Bath, BA1 2BW.

FREEPHONE 0800 132591

Monday–Friday 9.00am–5.30pm

Mygate COMPUTING

Apple Authorised Reseller

SPECIALS

- PowerMac 8100/110 16/2000 CD **£3349**
- TI MicroLaser Pro 600 **£799**
- Epson Stylus Pro XL A3 Colour inkjet 720dpi **£1499**
- UMAX PowerLook Pro **£1999**
- Formac Pro 50Mhz Accel. with FPU (LCIII/P450) **£185**
- LC/LCII/P400 Thunder Accelerator with FPU **£99**
- RasterOps 20/20 ColourVue 20" Display **£799**
- Xceed 24-bit video card (Perf. 630/5200/6200) **£475**
- 128Mb Optical Drive **£299**
- Iomega 100Mb Zip Drive **£135**

All specials are strictly subject to availability

Premier suppliers of Apple Macintosh systems and related hardware & software products

Please call for any item not listed below

CALL FOR OUR FREE PRODUCT GUIDE & FULL PRICE LIST

MEMORY

- 1MB *(30pin)* £28
- 2MB *(30pin)* £58
- 4MB *(30pin)* £95
- 16MB *(30pin)* £349
- 4MB *LCIII–475–630-Centris–Quadra–PowerMac* £100
- 8MB *LCIII–475–630-Centris–Quadra–PowerMac* £200
- 16MB *LCIII–475–630-Centris–Quadra–PowerMac* £349
- 16MB *PowerMac only* £325
- 32MB *LCIII–475-630–Centris–Quadra–PowerMac* £CALL

Call for prices on PowerMac 9500 DIMMS

- 4MB *Powerbook 500 Series* £130
- 8MB *Powerbook 500 Series* £225
- 16MB *Powerbook 500 Series* £449
- 4MB *Duo/PB150 (PB 150 needs Adaptor kit)* . . £125
- 8MB *Duo/PB150 (PB 150 needs Adaptor kit)* . . £230
- PowerBook 150 *Memory Adaptor Kit* £20

Please call for prices of POWERBOOK & PRINTER RAM

MATHS CO-PROCESSORS

- LC–LCII–Classic II. £32
- IIvi–Colour Classic–LCIII–IIvx–Duo Dock . £32
- LC475–Perf.475–Centris 610 *(Full68040)* £175
- LC630–Perf.630 *(Full 68040)* £249

VIDEO RAM

- 256K VRAM £15
- 512K VRAM £25

STORAGE

HARD DRIVES	Warranty	Int	Ext
340MB *(Fujitsu)*	2	£125	£200
520MB *(Fujitsu)*	2	£150	£225
1.0GB *(Fujitsu)*	5	£349	£424
2.0GB *(Fujitsu)*	5	£599	£674
4.0GB	5	£899	£974
9.0GB	5	£1499	£1599
AV Drives & 2, 4GB	5	CALL	CALL
PowerBook 340MB Hard Drive.		£225	-----
PowerBook 500MB Hard Drive.		£299	-----

SYQUEST (with Cables, Software +1 cartridge)

- 88MB *5¼"* . . . . . 1 . . . . . £279
- 200MB *5¼"* . . . . . 1 . . . . . £399
- 270MB *3½"* . . . . . 1 . . . . . £389

OPTICAL / CD-ROM (with 1 cartridge or caddy)

- 230MB *(with 5 cartridges)* . . . 2 . . . . . £549
- 1.3GB . . . . . 1 . . . . . £1299
- Apple CD-ROM 300e plus 1 . . . . . £180
- CD–RECORDER Plasmon RF4100 . . . . £1649

DAT BACKUP (with Cables +1 tape)

- 4GB DAT DDS-2 (with Retospect) £699
- 4-16GB DAT DDS-2 (with Retrospect) £849

Educational and Goverment departments are welcome to purchase with official orders.

PowerPC

- Performa 6200 8/500 CD w/ kb £1015
- Perf. 6200 8/500 CD w/ 14" Performa Plus Disp. & kb £1159
- Perf. 6200 12/500 CD Plus w/ TVkit, kb. . . £1240
- Perf. 6200 8/500 CD Plus w/ 14" Trini Disp, Spkrs & kb £1255
- Perf. 6200 12/500 CD Plus w/ TV kit, 15" disp & kb £1580
- Perf. 5200 8/500 CD w/ built-in 15" disp & kb . £1230
- Perf. 5200 12/500 CD Plus w/ TV kit, built-in 15"&kb £1505
- PowerMac 6100/66 8/350 CD £1189
- PowerMac 6100/66 8/500 . . . . . £1075
- PowerMac 6100/66 8/500 CD £1269
- PowerMac 7100/80 8/350 . . . . . £1620
- PowerMac 7100/80 8/700 CD £1890
- PowerMac 7100/80 8/700 CD AV £1890
- PowerMac 8100/100 8/700 . . . . . £2375
- PowerMac 8100/100 16/700 CD £2725
- PowerMac 8100/100 16/1000 CD AV . £2999
- PowerMac 9500/120 16/1000 CD £3655
- PowerMac 9500/132 16/2000 CD £4320

PRINTERS

- Apple StyleWriter 1200 . . . . . £199
- Apple Colour StyleWriter 2200. . . . . £269
- HP DeskWriter 540 . . . . . £230
- HP DeskWriter 660C £325
- Epson Stylus Colour Inkjet £375
- TI MicroWriter PS23 (300dpi, 5ppm) £495
- TI MicroLaser 600 (600dpi, 5ppm, 2Mb) £599
- Apple LaserWriter 16/600 . . . . . £1559
- Apple Colour LaserWriter 12/600 PS . £4699

SCANNERS

- Visioneer Paperport £315
- Epson GT-6500 w/ Photoshop LE £430
- Agfa StudioScan IIsi w/ full or Lite Photoshop. . . £CALL
- Epson GT-9000 w/ full Photoshop. £875
- UMAX PowerLook Pro w/ transp. adaptor & full PS. £1999

SOFTWARE

- Ram Doubler 1.5 . . . . . £55
- ClarisWorks 3.0 . . . . . £99
- Power Print £99
- MacroMedia Freehand 5.0 . . . . . £315
- MacroMedia Director v4.0 . . . . . £749
- Adobe Photoshop 3.0 . . . . . £379
- Adobe Illustrator 5.5 . . . . . £275
- Adobe PageMaker 5.0 Native/Non-native £389
- Adobe Collection (Photoshop, Illustrator, Dimensions) £499
- Microsoft Office v4.2. . . . . £345
- QuarkXpress 3.3 Native/Non-native £649/£589
- Quay2 Training CDs Quark, P/shop, P/Maker, Illust etc. £99

International enquiries are welcome.

TERMS and CONDITIONS

All prices exclude VAT and delivery. Payment with order by VISA, Access, Mastercard, American Express, Switch, Delta, JCB or cheque (payable to Mygate Ltd.) Prices subject to change without notice. Offers subject to availability. All trade marks acknowledged. E & O.E.

MACINTOSH + POWERBOOK

- Perf. 630 4/250 w/ 14" Performa Plus Disp. & kb £835
- Perf. 630 8/500 CD w/ 15" Display & k/b £1005
- Perf. 630 8/350 CD Plus w/ TV kit, 15" Disp. . . . £1255
- Perf. 630 12/500 CD DOS Compatible & k/b £1295
- PowerBook 150 4/250 . . . . . £725
- PowerBook 520 4/240 . . . . . £1169
- PowerBook 520C 4/240 . . . . . £1720
- PowerBook 540C 12/500 w/ modem £3075
- Duo 280C 12/500 w/ modem. £2399

Please call for any other configuration

MONITORS

- Nokia 15" Trinitron Colour Display. . . . £299
- Formac 17" Trinitron Display £499
- Apple 17" Multiple Scan Display £649
- Apple 20" Multiple Scan Display £1349
- SuperMac 21•TXL w/ Thunder IV GX•1600 . . . . . £3699

ACCELERATORS • UPGRADES

- 256k cache for PowerMac (6100/7100) £99
- 512k cache for PowerMac £199
- ThunderCache 32MHz 030 w/ FPU& cache LC/LCII/P400 £199
- DayStar Universal PowerCache . . . from £259
- Power Macintosh PDS Upgrade £450
- DayStar Digital Turbo 040 40MHz £649

COMMUNICATIONS

- US Robotics Mac & Fax (14,400) £140
- SupraFAXModem (14,400) £99
- SupraFAXModem (28,800) £199
- Global Village Powerport Mercury PB 500 Series £285
- Global Village Teleport Gold II (14,400) . . . £125
- Global Village Teleport Platinum (28,800) . £220
- 4-Sight Network Fax . . . . . CALL

MISCELLANEOUS

- WACOM Art Pad £145.00
- WACOM Art Pad with Dabbler £175.00
- WACOM A4 Graphics Tablet £385.00
- AppleTalk/PhoneNet Kits £12.50
- Mac to VGA Monitor Cable £13.50
- ADB Clone Extended Keyboards . from £49.00
- ADB (low cost) Mouse £25.00
- CD-ROM Extra Caddies. £6.50
- SCSI Cable/Terminator . . . . . £10.00/£9.00
- SCSI PowerBook Cable £25.00
- DeskWriter cart. Black/Colour £21.00/£22.00
- Epson Stylus cart. Black/Colour £20.00/£30.00
- StyleWriter I/II/1200 Ink cartridge. . . £15.00
- GCC Toner/EP cartridge . . . . £19.50/£165.00
- 44MB/88MB Syquest carts. . . £30.00/£35.00
- 200MB/270MB Syquest carts. £55.00/£45.00
- 128MB/230MB Optical Disks . £19.00/£24.00
- 650MB/1.2GB Optical Disks . . £50.00/£60:00
- Ethernet cards LC/Nubus £65.00
- Ethernet (AAUI) Transceiver £39.00

Unit 11, Southbrook Industrial Estate, Southbrook Road, Lee, London SE12 8LG

VISA · Access · MasterCard · AMERICAN EXPRESS

FAX: 0181-318-1802

FOR NON SALES ENQUIRIES OR TECHNICAL INFORMATION: TELEPHONE 0181-318-1424

Open 9.00am to 5.00pm Monday to Friday . 10.00am to 3.00pm Saturday

Excellent Quality • Superior Service • Unbeatable Value

DABS DIRECT

PERSONAL COMPUTER SYSTEMS

freephone **0800 680000**

BOLTON 01942 794000 EDINBURGH 0131 556 4114 LONDON 0171 582 4777

POWER MACINTOSH HARDWARE

Power Mac 6100/66 8/500	1145	Power Mac 6100/66 8/500 CD	1274
Power Mac 7100/80 8/350	1733	Power Mac 7100/80 8/700 CD	2030
Power Mac 7100/80 8/700 AV CD	2140	Power Mac 8100/100 8/700	2445
Power Mac 8100/100 16/700 CD	2784	Power Mac 8100/100 16/1000 AV CD	3045
Power Mac 8100/110 16/2000 CD	3885		
AWS 6150 16/700 CD Appleshare & Viper	2078	AWS 6150 16/700 CD DAT Web Server	2078
AWS 8150 16/2000 CD DAT Ashare & Viper	5055	AWS 8150 16/2000 CD DAT Web Server	5055
AWS 9150 24/4000 CD DAT Ashare & Viper	7031	AWS 9150 24/4000 CD DAT Web Server	7031
AWS 6150 16/700 CD FM Pro Server	2573	AWS 8150 16/2000 CD DAT FM Pro Server	5339
AWS 8150 16/2000 CD DAT ACI 4D Server	5362	AWS 9150 24/4000 CD DAT ACI 4D Server	7445
SoftWindows & 8Mb (for 8Mb PowerMacs)	330	SoftWindows (for 16Mb PowerMacs)	110
Power Mac 6100 DOS Compatibilty Card	385	AV Display card	350
256k Cache Card	105	Power Mac Upgrade Card for Quadra/LC	545

POWER MACINTOSH BUNDLES

Power Mac 6100/60 8/250 & DOS Compatibilty Card & 8Mb Memory Upgrade	1470
Power Mac 6100/60 8/250 CD & DOS Compatibilty Card & 8Mb Memory Upgrade	1575
Power Mac 6100/66 8/350, 14" Monitor, Agfa StudioScan I & Aldus PageMaker	2126
Power Mac 8100/80 8/500, 17" Monitor, Agfa StudioScan II & Aldus PageMaker	3307
Power Mac 8100/80 8/500 & 17" Trinitron Monitor	2405
Power Mac 8100/110 16/2000 CD & 20" Trinitron Monitor	5105

APPLE ON-SITE MAINTENANCE

		1 yr	2 yr	3 yr
Group 1	StyleWriters, ImageWriters	15	55	92
Group 2	LC & Performa 400s, Scanners, CD-ROM Drives, Monitors up to 16"	15	84	126
Group 3	LC, Performa & Quadra 600s, Powerbooks, Duos, Colour StyleWriters Monitors over 16", Quicktake 100, LaserWriters	15	99	165
Group 4	Quadra 8/900s, Workgroup Servers, all Power Mac	15	135	220

APPLE MACINTOSH HARDWARE & BUNDLES

Performa 475 4/250 & keyboard	619	Performa 475 4/250 Plus & keyboard	629
Performa 630 4/250 & keyboard	761	Performa 630 8/250 CD & keyboard	881
Performa 630 8/250 CD Plus & keyboard	1024	Quadra 630 4/250 & keyboard	813

Mac Bundle	RAM	HD	Bundle includes	
Performa 475 4/250	4	250	Performa 14" display & keyboard	687
Performa 475 4/250 Plus	4	250	Performa 14" display & keyboard	731
Performa 630 8/350 CD	8	350	V-in-TV & keyboard	1049
Performa 630 8/350 CD Plus	8	350	V-in-TV & keyboard	1181
Performa 630 4/250	4	250	Performa 14" display & keyboard	852
Performa 630 4/250	4	250	Multiscan 15" display & keyboard	933
Performa 630 8/250 CD	8	250	Multiscan 15" display & keyboard	974
Performa 630 8/250 CD Plus	8	250	Multiscan 15" display & keyboard	1017
Performa 630 8/350 CD	8	350	V-in-TV, Multiscan 15" display & keyboard	1177
Performa 630 8/350 CD Plus	8	350	V-in-TV, Multiscan 15" display & keyboard	1220
Performa 630 12/500 CD DOS	12	500	DOS Compatibility card, DOS 6.22, Windows 3.11 & kb	1249
Quadra 630 4/250	4	250	Multiscan 15" display & keyboard	987

Performa 630 Video In card	85	Performa 630 Video In & TV Tuner card	215
Performa 630 Presentation kit (Video Out)	199	Power Mac Upgrade Card	545

POWER PC PERFORMA HARDWARE & BUNDLES

Performa 6200 8/500 CD & keyboard	979	Performa 5200 8/500 CD & keyboard	1187
Performa 5200 8/500 CD Plus & keyboard	1248	Performa 5200 12/500 CD Plus V-in-TV & kb	1450

Mac Bundle	RAM	HD	Bundle includes	
Performa 6200 8/500 CD	8	500	Performa 14" display & keyboard	1117
Performa 6200 8/500 CD Plus	8	500	Multiscan 15" display & keyboard	1312
Performa 6200 8/500 CD DS Plus	8	500	14" Trinitron display, Design Speakers & keyboard	1209
Performa 6200 12/500 CD Plus	12	500	V-in-TV, Multiscan 15" display & keyboard	1525
Performa 6200 12/500 CD DS Plus	12	500	V-in-TV, 14" Trinitron display, Design Speakers & kb	1404

APPLE MACINTOSH POWERBOOKS

	RAM	HD	CPU	Screen	
Powerbook 150	4	250	33MHz 030	9.5" 4 GS PM	699
Powerbook 150 & GV Bronze Modem	4	250	33MHz 030	9.5" 4 GS PM	771
Powerbook 150 & GV Gold Modem	4	250	33MHz 030	9.5" 4 GS PM	876
Powerbook 150 & GV Mercury Modem	4	250	33MHz 030	9.5" 4 GS PM	944
Powerbook 520	4	240	50/25Mhz LC040	9.5" 256 PM	1135
Powerbook 520C	4	240	50/25Mhz LC040	9.5" 256 PM	1670
Powerbook 520C EM	12	320	50/25Mhz LC040	9.5" 256 PM	2168
Powerbook 520C EM & case & Teleadaptor	12	320	50/25Mhz LC040	9.5" 256 PM	2203
Powerbook 540C	4	320	66/33Mhz LC040	9.5" 256 or 32k AM	2656
Powerbook 540C EM	12	500	66/33Mhz LC040	9.5" 265 or 32k AM	3245
Powerbook 540C EM & case & Teleadaptor	12	500	66/33Mhz LC040	9.5" 265 or 32k AM	3281
Powerbook Duo 280 EM	12	200	66/33Mhz LC040	9" 16GS AM	2010
Powerbook Duo 280C	4	500	66/33Mhz LC040	8.4" 256 or 32k AM	2108
Powerbook Duo 280C EM	12	500	66/33Mhz LC040	8.4" 256 or 32k AM	2447

Key: EM = Express Modem, GS = Greyscale, GV = Global Village, PM = Passive Matrix, AM = Active Matrix

Powerbook DuoDock II	660	Powerbook Duo MiniDock	280
Powerbook PCMCIA Expansion Module	110	Powerbook Duo Rechargeable Type III Battery	55
Powerbook Type II/Type III Battery	85	Powerbook Duo Floppy Adaptor	82
Powerbook External 1.44Mb drive	95	Powerbook 1xx AC Adaptor	38
Powerbook 500 AC Adaptor	95	Powerbook Duo AC Adaptor	45
Powerbook Standard Carry Case	20	Powerbook Business/Designer Carry Case	40

MEMORY

	1Mb	2Mb	4Mb	8Mb	16Mb	32Mb
Classic, Mac II, Q700 30 pin	55		123	255	449	
Quadra, PMac, LCIII, 475, 630		59	99	199	355	699
Quadra 660AV, 800, 840AV			150	280	349	718
Powerbook 520, 520c, 540, 540c			130	265	449	

	4Mb	6Mb	8Mb	10Mb
Powerbook 140, 145B, 170	108	161		
Powerbook 160, 165, 180	117	174	231	307
Powerbook 165C, 180C	130	180	230	240
Powerbook 150	152		285	

	1Mb	2Mb	4Mb	6Mb	8Mb	16Mb
Personal Laserwriter 320		82		229		
Laserwriter Select 300/310	65		165			
Laserwriter 16/600			145		260	520
Laserwriter Pro 630			150			

Video RAM	256k	15	512k	25

PSION SERIES 3

Series 3a 256k	175	Series 3a 512k	199
Series 3a 1Mb	249	Series 3a 2Mb	299
Series 3S 256k	129	PC Comms Link	49
Mac Comms Link	55	Mains Adaptor	12
Parallel Cable	23	Leather Wallet	19
Fax Modem	159	128k Flash SSD	27
128k RAM SSD	37	256k Flash SSD	40
512k RAM SSD	89	512k Flash SSD	65
1Mb RAM SSD	189	1Mb Flash SSD	89
2Mb Flash SSD	139	4Mb Flash SSD	255
3Flight Manager	58	Psion Money	40
3Base	24	3Flight Manager	58
Agenda 3 Win	59	Agenda Link 3a	35
Data Deluxe	49	Datavision	49
Finance Pack 3a	50	Games 3a only	34
Spellcheck/Thesaurus	29	Spreadsheet	24
WinLink	23	Widget Tools	42

APPLE HANDHELDS

Message Pad 110	325	Message Pad 120	395
Connectivity Kit Mac	55	Fax Modem card	80
Print Pack	45	Mains Adaptor	18
1Mb Storage card	60	2Mb Storage card	110
4Mb Storage card	200	NICAD Battery Pack	16
Leather Carry case	40	Recharger & Mains	54
SOFTWARE			
GoFigure	25	PocketCall	65
ExpensePlus	38	Notion List Manager	30
Jig Saw	16	FilePad	75
TapWorks	54	Newton Utilities	23
PCMCIA SOFTWARE			
Fodors 94 Travel Mgr	23	Berlitz Interpreter	65
Time Out Guide	38	Newton Enh Pack	90

ACCESSORIES

Design Keyboard	74	Extended Keyboard	128
Adjustable Keyboard	149	Desktop II Mouse	35
PlainTalk Microphone	20	Design Speakers II	46
MIDI Interface	53	Security Kit	34

CD-ROM DRIVES

APPLE			
CD300i+	145	CD300e+	172
D2			
2.4x External	170		
NEC			
3xp+	245	4xe	363
3xp/4e Mac software	31	Dual Speed Ext Kit	115
PIONEER			
DRM-602X 2x 6 disc	399	DRM-604X 4x 6 disc	865
TOSHIBA			
XM5201S 3.4x	195	XM3601S 4.4x	299
XM3501S 4x	325		

HARD DISKS

Bracketed figure is nominal capacity in Mb.

CONNER			
CFA540S (540)	199	CFA1060S (1.06Gb)	325
MICROPOLIS			
2217 (1.7Gb)	585	4221AV (2.1Gb)	696
3243AV (4Gb)	1065	1991AV (9.1Gb)	1850
QUANTUM			
LPS270S (270)	107	LT365S (365)	120
MV540S (540)	143	XP32150 (2.1Gb)	575
GP4280S (4Gb)	1356		
SEAGATE			
ST31230N (1Gb)	332	ST32550N (2.1Gb)	701
ST15230N (4Gb)	863	ST410800N (9Gb)	1776
STORAGE OPTIONS			
500A	261	1000P	489

Compact, external hard drives for desk top use.

- SCSI - 2
- Fully packaged Including software & cable
- 48 hr. FREE swap-out
- Seagate drives

STORAGE OPTIONS

1Gb 9/10.5 msec £440
2Gb 9/10.5 msec £806
4Gb 8/9 msec £1373

EXTERNAL CASED HARD DISKS Add together the price of the disk and case. Formatting, fitting and ID setting is free of charge

EXTERNAL CASES

3.5" Single Drive	60	5.25" Half Height	70
5.25" Full Height	120	5.25" Full Height x2	190

All with internal PSU

INTERNET

Each of our staff have an Internet address for direct correspondence. You can deal with accounts, purchasing and customer service departments through the 'Net. Please call for addresses.

LASERS

APPLE			
LW 300	409	LW 320	595
LW Select 360	979	LW Pro 630	1180
LW 16/600PS	1505	LW 16/600PS & fax	1540
LW 16/600PS & fax & modem			1599
BROTHER			
HL-10PS	1179	HL-10DPS	1299
CALCOMP			
CCL 600	2150	CCL 600ES	2475
CCL 1200ES	3005		
DIGITAL			
DECLaser Pro 5100	1089	DECLaser Pro 660	1170
DECLaser 3500	1495	DECLaser Pro 1200	2290
HEWLETT PACKARD			
LaserJet 5MP	695	LaserJet 4M+	1255
LaserJet 4MV	1969	LaserJet 4SiMX	2927
LaserJet Colour	4199		
HEWLETT PACKARD SUPPORT PACKS			
LaserJet 5MP	695	LaserJet 4M+	1255
LaserJet 4MV	1969	LaserJet 4SiMX	2927
LaserJet Colour	4199		

ORIGINAL HP LASER MEMORY UPGRADES

Printer	1Mb	2Mb	4Mb	8Mb
4M/4SiMX/1200/PJ	69	119	189	329
5MP/4M+/4MV/Colour	69	119	167	329
4ML	59	-	-	-

QMS			
1060	1890	1660 PS	2670
ColorScript 210PS	2850	ColorScript 230PS	5880
MagiColor LX	4999		
TEXAS INSTRUMENTS			
MWriter PS23	475	ML 600 2Mb	599
ML 600 Plus 4Mb	699	ML Pro 600 23 Font	775
ML Pro 600 65 Font	949	Pro E	995
Power Pro 600	1025		

PRINTERS

APPLE			
StyleWriter 1200	188	StyleWriter Portable	209
StyleWriter 2200	Call	Colour SWriter 2400	355
CANON			
BJC 820 A3	1235		
EPSON			
Stylus Colour	319		
FARGO			
Primera Pro	1299	Picturra 310	3420
HEWLETT PACKARD			
SPECIAL DeskWriter 310 £126			
DeskWriter 320	165	DW 320 & ASF	177
DeskWriter 540	206	DW 320/540 Col Kit	28
DeskWriter 660C	293	Deskjet 850C	389
DeskJet 1600CM	1219		
LEXMARK			
PS 4079	2105		
TEKTRONIX			
Phaser 140	849	Phaser 140e	1049
Phaser 340	3995	Phaser 340+	5495

MODEMS

APPLE			
Geoport adaptor	96	Express Modem	285
520 Express Modem	315	Duo Express Modem	220
ANDEST			
RR Rocket Gold	135	RR Rocket Terbo Plat	135
VPA V22bis	349	VPA V32bis	399
GLOBAL VILLAGE *(Not BABT Approved)*			
Teleport Bronze II	87	Teleport Gold II	120
Teleport Mercury	250	Teleport Platinum	230
Powerport Bronze	89	Powerport Gold	215
Powerport Mercury	250	Powerport Platinum	299
HAYES			
Accura 144 + fax	159	Accura 288 + fax	189
MULTITECH			
Internet in a box	235		
PACE			
Mobifax MacPack	129		
US ROBOTICS			
Sportster 14.4 + fax	107	Sportster 28.8 + fax	189

FEATURES

- Data Speeds; V.34 at 28,800bps, V.FC, V.32bis, V.32, V.23, V22bis, V.22, V.21, Fax:V.17 at 14,400bps, V.29, V.27ter
- V.42/V.42bis MNP 2-5 Error Correction/Data Compression
- Fax Class 1 & 2.0, Group 3
- Asynchronous operation
- Mac serial cable and MacComCenter software supplied
- BABT Approved

£189

ZOOM			
Zoom 144	93	Zoom 288	165

SCANNERS

AGFA			
StudioScan	485	StudioScan II	650
StudioScan II Tranny	269	Arcus II & Tranny	2295
APPLE			
OneScanner	435	Colour OneScanner	555
QuickTake 100	235	QT100+Photoflash 2	319
CAERE			
OmniScan	269		
EPSON			
GTx 6500	396	GTi 6500	566
GTx 8500	509	GTi 8500	695
GTx 9000	615	GTi 9000	802
Transparency Unit	436	Document Feeder	319
HEWLETT PACKARD			
Scanjet 3p	310	Scanjet 3c	599
MICROTEK			

ScanMaker IIXE
• 24-bit/16.7million colours
• 300x600 dpi optical resolution
• 1200x1200 dpi interpolated
• 21.6cmx35.6cm scanning area
• Three pass scan with RGB filter
• PhotoShop full version
£426
MICROTEK
Scanners - Software - Support
Transparency hoods and auto document feeders are also available

Scanmaker II SP	545	Scanmaker III	1999
NIKON			
CoolScan External	990	ScanTouch	870
UMAX			

UMAX SCANNERS

TRANSPARENCY ADAPTER & DOCUMENT FEEDER AVAILABLE FOR ALL SCANNERS

Vista-T630

- 24bit/16.7m colour scanning
- 300x600dpi optical resolution
- 4800x4800 max res. thru Ultra View technology
- 3 Pass, RGB filter
- VistaScan Software Driver

£385

Vista-S8LE

- 24bit/16.7m colour scanning
- 400x800dpi optical resolution
- 6400x6400 max res. thru Ultra View technology
- Single-pass, colour CCD
- VistaScan Software Driver

£540

Powerlook Pro

- 30 bit colour scanning
- 600x1200dpi optical resolution
- 2Mb input/output buffer
- Transparency adaptor
- Single-pass, colour CCD
- VistaScan Software Driver
- Full Photoshop

£1970

Vista T630	385	Vista T630 Pro	795
Vista S6LE	475	Vista S6 Pro	855
Vista S8LE	540	Vista S8 Pro	955
Vista UC1260FE	765	UC1260 Pro	1035
Powerlook Pro	1970		

12 month replacement warranty on all Umax scanners

VISIONEER			
Paper Port	299		

DAT STREAMERS

HP JETSTORE			
2000e 2Gb	741	5000e 4-8Gb	827
6000e 8-16Gb	920		
WANGDAT			
3100 Ext 2Gb	595	3200 Ext 4-8Gb	700
3400DX Ext 8-16Gb	795		

SYQUEST DRIVES

88Mb	245	105Mb	265
200Mb	360	270Mb	385

All inc cable, software & 1 cartridge

MO DRIVES

FUJITSU			
128Mb	569	230Mb	615
SONY			
128Mb D2	399	230Mb D2	535
1.3Gb	1659		

All inc cable, software & 1 cartridge

CD RECORDING

Philips CDD522 2x	1595	JVC XR-2001 2x	1499
Yamaha CDR100e 4x	2400	Ricoh RS1060 2x	1399
Toast CD-ROM	399	Toast CD-ROM Pro	599

ORDER NOW ON 0800 680000 • ORDER NOW ON 0800 680000

Fax Now on 01942 797979 Fax Now on 01942 797979

LOWEST PRICES SUPPLYING THE BEST BRANDED PRODUCTS AVAILABLE • HIGHLY TRAINED TECHNICAL SALES PEOPLE • TRADING FOR OVER 8 YEARS ANNUAL TURNOVER OF OVER £15M • EASY FOR BOLTON WOKING COLLECTIONS • OVER 59,000 SATISFIED CUSTOMERS • SERVING YOU SINCE 1987

DABS DIRECT

PERSONAL COMPUTER SYSTEMS

Authorised Reseller

FREE PRINTER CABLE WITH ALL PRINTERS

WOKING 01483 797474 INTERNET sales@dabs.co.uk

MONITORS

ALL Monitors listed are MPR-II, Low Radiation EXCEPT where marked •

APPLE

Performa Plus 14"	199	Trinitron 14"	234
Audio Visual 14"	315	MultiScan 15"	274
MultiScan 17"	529	MultiScan 20"	1299

FORMAC PRONITRON

80.17 17"	526	80.20 20"	1210
80.20HP 20"	1250		

IIYAMA

MF8115 15"	259	MF8617 17"	536
MF8221 21"	1247	MF9121 21"	1293
MF8621 21"	1645		

NEC

Multisync XV14	225	Multisync XV15	275
Multisync XE15	395	Multisync XV17	549
Multisync XE17	688	Multisync XP17	899
Multisync XE21	1139	Multisync XP21	1749

PANASONIC PRO SERIES

TX-T1537 15"	315	TX-D1732 17"	470
TX-D1751 17"	639	TX-D2032 20"	1119
TX-D2123 21"	1349	TX-D2103 21"	1408
445M092 21"	1415	445X092 21"	1599

PHILIPS

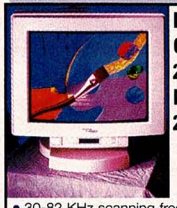
15B 15"	247	17C 17"	419
17T Trinitron 17"	639	17A 17"	643
20C 20"	775	20T Trinitron 20"	1295
21B 21"	1355		

RADIUS

20GS 20" 2pg GS	579	21GS 21" 2pg GS	780
Pivot GS	489	PrecisionCol Pivot	655
PrecisionColor 17	879	PrecisionCol 20V	1179
IntelliColor 20e	1385		

RASTEROPS CLEARVUE

20-T 20"Trinitron	1229	20-T Enhanced 20"	1650



RasterOps ClearVue 20T Multiscan 20"Monitor

£1229

- 30-82 KHz scanning frequency
- 50-160 KHz vertical frequency
- Maximum resolution 1280 x 1024
- Mac adapter cable
- Energy Star rating, MPRII
- 1 year replacement warranty

SONY

CPD-15SF1 15"	305	CPD-17SF1 17"	585
GDM-17SEIT 17"	827	GDM-20SEVT 20"	1225
GDM-20SEIT 20"	1419		

SUPERMAC

Supermatch 17T	649	Supermatch 21TXL	1419
PressView 21T	2630		

TAXAN ERGOVISION

580 15"	279	880 17"	489
885 17"	615	1080 20"	895
1095 20"	1299	2100 21"	1499

VIEWSONIC

VS15ES 15"	245	VS15G 15"	319
VS17G 17"	545	VS17-2 17"	679
VS20G 20"	1030	VS21PS 21"	1380

Adapters available if required. Please call for details.

VIDEO BOARDS

RADIUS

8xj 1152x882 8bit	425	24xp 832x624 24bit	415
24xk 1024x768 24bit	599	24x 1152x882 24bit	799
LeMansGT 30bit	1099	Thunder/24 GT	1135
Thunder IV GX 1152	1599	Thunder IV GX 1360	1899
Thunder IV GX 1600	2399	PhotoBooster	699
PhotoEngine	860		

RASTEROPS

Paintboard Prism	550	Paintboard Prism GT	869

SUPERMAC

VideoSpigot	309	VideoSpigot LC	190
Spigot Power AV	720		

ACCELERATORS

DAYSTAR

PowerPro 601	Call	Turbo 601 66Mhz	869
Turbo 040 33Mhz	489	Turbo 040 40Mhz	586
PowerCard 601	521	PowerCache 030	413

For full details please call

PLOTTERS

HEWLETT PACKARD

Designjet 230 A4 - A1	Call	D'jet 230 A4 - A0	Call
Designjet 600 A1	3255	D'jet 600 A0	3899
Designjet 650C A1	3750	D'jet 650C A0	5259
HP Designjet OSM	300		

ROLAND

Sketchmate A4	409	Sketchmate A3	545
DXY-1150	585	DXY-1250	710
DXY-1350	945	GRX-350	2379
GRX-450 A0	2968		

SUMMAGRAPHICS

Mono A1	1865	Colour A1	2345
Mono A0	2345	Colour A0	2680

NETWORK CARDS

APPLE

Ethernet NB	155	Ethernet LC	95
Ethernet NB TP	80	Ethernet LC TP	68
BNC/TP Transceiver	34	AUI Transceiver	54
CommsSlot Thin card	55	CommsSlot UTP card	55
CommsSlot AUI card	55		

FARALLON

EtherMac LC-TN BNC	79	EtherMac LC-10T UTP	75
EtherMac II-TN BNC	75	EtherMac II-10T UTP	79
EtherThin Printer/Powerbook/Netwon Adaptors			240

PLANET

Planet II Lite	650	Planet II Full	820

HUBS

3COM

FMS II 12port+AUI	379	FMS II 24port+AUI	670

ASANTE

Hub/8 8port+BNC	160	Hub/12 12port+BNC	330

DAYSTAR

MiniHub 5	160	MiniHub 8	190
Stack 12	570	Stack 24	1030

D-LINK

DE809TP 8port			130
DE812TP+ 12port & BNC & AUI			175
DE816TP 16port & BNC & AUI			235
DE824TP 24port & BNC & AUI			352
DE1200 12port & BNC & AUI stackable			299
DE1600 12port & BNC & AUI stackable SNMP			525

FARALLON

Ether10-T Starlet/4	130	Ether10-T Starlet/8	170
Ether10-T Starlet/16	370		

HP ADVANCESTACK

Hub 12	325	Hub 24	550
Hub 48	1045	Hub 12 SNMP	480
Hub 24 SNMP	719	Hub 48 SNMP	1129

SMC

TigerHub TP6 6Port WorkGroup UTP			155
TigerHub TP6B 6Port WorkGroup UTP			170
TigerHub CX6 6Port WorkGroup BNC			430
TigerHub FL6 6Port WorkGroup Fiber			971
TigerHub TP12 12Port WorkGroup UTP			295
TigerHub CX3 3Port WGroup BNC			210
Elite 3812TP 12 & 2 port stackable UTP			399
Elite 3812TP 24 port stack bundle UTP			840

CONSUMABLES

DISCS	10	100	250
Unbranded 1.44Mb DSHD	50p	40p	35p
Branded 1.44Mb DSHD	60p	40p	35p

CD RECORDABLE	1	10	100
650Mb/74min	10	8	7

CABLES	2m	3m	5m	10m
Macintosh Printer	5	-	8	15
Ethernet Coax BNC-BNC	5	-	8	10

	1m	2m
SCSI C50M-C50M	8	15
SCSI C50M-HC50 Micro D	19	29
SCSI HC50 Micro D - HC50 Micro D	29	39
SCSI C50M-HC68 Wide SCSI	65	-
SCSI HC50 Micro D - HC68 Wide SCSI	65	-
SCSI D25M-C50M	6	19

ADAPTORS

BNC Twist-on	2	BNC T-Piece	2
BNC Terminator	5	SCSI C50 Terminator	10

ORIGINAL INKJET CARTRIDGES

StyleWriter II/1200	14	SWriter Pro HiCap Blk	7
SWriter Pro Colours	8	A3 Colour Black	19
A3 Colour Colours	23	SWriter 2400 Black	20
SWriter 2400 Col	25	Epson Sty Col, Black	12
Epson Stylus Col, Col	29	HP DW 310/320/Port	15
HP Deskwriter Black	18	HP Deskwriter Colour	18
HP DJ 1200CPS Black	17	HP DJ 1200CPS Cols	24
DJ 850C/1600CM Blk	20	HP DJ 850C Colour	25
HP DW 660C Black	19	HP DW 660C	20
HP Paintjet Colour	20	HP Paintjet Black	18
HP Paintjet XL Black	15	HP Paintjet XL Colours	17
HP Paintjet XL300 Blk	15	HP Pjet XL300 Colours	17

TONERS

Personal LW300/320	45	LW Select 300/310	49
LW Select 360	71	LW 16/600 Pro 630	91
LW Pro 810	200	HP Laserjet 4ML/4MP	43
HP IIIsi/4SiMX	85	HP Laserjet 4M/+	68
HP Laserjet 5MP	69		

DATA CARTRIDGES

2Gb/4Gb 90m DAT	16	4Gb/16Gb 120m DAT	20

MO DISCS

128Mb 3.5"	25	230Mb 3.5"	39
1.3Gb 5.25"	75	1.5Gb 5.25"	95

SYQUEST CARTRIDGES

44Mb	29	88Mb	36
105Mb	36	200Mb	52
270Mb	41		

DIGITISERS

CALCOMP

A5 DrawingSlate	285	A4 DrawingSlate	365
A3 DrawingSlate	515		

SUMMASKETCH

III A4	210	III Pro A3	450
FX A4 4btn cursor	275	FX A3 Pro	495

WACOM

ArtPad	129	ArtPad+Dabbler	170
ArtPad+Painter 3	375	A5 Tablet+Painter 3	505
A5 Tablet	255	A4 Tablet	430
A3 Tablet	671		

SOFTWARE

ACCOUNTING

MYOB 3.0	170	Ritz Accounting	239
Ritz Meridian	132		

BUSINESS

ACT 2.0	145	ARoute Exp GB & Ire	89
Claris Organiser	39	Lotus Notes Express	135
MS Mail 3.1	173	MS Project 4.0	Call
Now Contact	59	Now Up-To-Date 3.0	59
Ritz Meridian	132	Symantec C++ Pro	213

CAD

MiniCAD 5.0	399	TurboCAD	69

COMMUNICATIONS

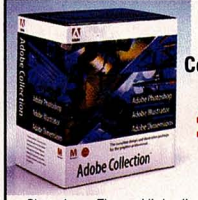
Connect II	120	Fax Pro	69
Snatcher 1	35	MicroPhone LT	39
MicroPhone II 5.0	149		

DTP & FONTS

Acrobat 2.0	120	Acrobat Pro 2.0	355
Fontographer 4.1	335	Home Publisher	59
PageMaker 5.0	379	QuarkXPress 3.3	547
QuarkXPress PMac	625	Super ATM	49
Typestry 2.1	150	Type Reunion	42
Type Styler	97	Type Twister	29

DATABASE

4D First	79	FileMaker Pro 2.1	89
MS Fox Pro 2.5	55		



The Adobe Collection

£485

- Photoshop—The world's leading photo design and production tool
- Illustrator—The leading illustration and page-design tool.
- Dimensions—A powerful 3D imaging and effects tool

The Collection is a must for creating stunning graphical effects. All NEW featured applications enable easier, more intuitive creation and production than ever before.

Adobe

GRAPHICS

Add Depth	89	Astound 1.0	85
Canvas 3.5	155	Claris Draw	191
Colour Studio	289	Dabbler	65
Debabelizer Lite	88	Dimensions 2.0	95
Envelopes	75	Fetch 1.2	99
Font Studio 2.0	245	Freehand 5.0	288
Gallery Effects	245	Illustrator 5.5 CD	269
Infini-D	399	Jag II	79
Kai's Power Tools	87	KPT Bryce	95
KPT Convolver	95	KPT for Photoshop	95
LetraStudio	149	LogoMotion	99
MacDraw II	125	MS Powerpoint	255
Painter 3	290	Paint Alchemy	67
Persuasion 3	224	Photoflash	150
Photoshop 3.0	389	MS PowerPoint	279
Premiere 4	388	Quicktime Starter kit	49
Sketch	499	Sketcher	79
Streamline 3.0	89	Video Director	49

INTEGRATED PACKAGES

Claris Office	429	Claris Works 3.0	99
MS Office 4.2	329	MS Works	89
WordPerfect Works	140		

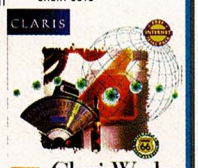
CLARIS

ClarisWorks 3.0 & The Internet

ASSISTANCE TECHNOLOGY
OUTLINING
PRESENTATIONS
PAINTING
SHORT CUTS

INCLUDING

- CD INTERNET SOFTWARE CONNECTION KIT
- 10HRS FREE INTERNET USEAGE
- 250 CLIPART IMAGES
- FREE ROUTE 66 SOFTWARE COLLECTION



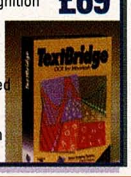
£99

ClarisWorks

TextBridge for MAC

- Easiest OCR to use - just hit GO!
- TextBridge OCR software NATIVE for Power Macintosh
- Technology from PARC for increased accuracy
- Multi-Tiff file fax recognition
- Word verifier
- TWAIN compliant
- Support for 12 European languages
- Up to 127 zones defined for complex layout
- Maintains formatting
- Outputs to all common WP formats

£69



SOFTWARE

OCR

OmniPage Direct	70	OmniPage 5	289

UTILITIES

AccessPC & MacDisk	59	After Dark 3.0	24
After Dark Collection	48	Connectix PBook Utils	59
Connectix DT Utils	59	DiskDoubler Pro 1.1	59
MacLink + PC 7.5	129	MacLink + Trans 7.0	93
Mac PC Exchange	115	Mac Tools Pro 4.0	78
Norton Utilites 3.1	72	Now Utilities 5	59
Pyro 4.1	25	RAM Doubler	48
Ready Set Go	170	Remote Acc Client	55
Remote Acc Server	170	Restrospect	145
Retrospect Remote	255	SAM 4.0 with subs	95
SAM 4.0 no subs	49	Stacker	52
Soft PC 3.0	45	Soft PC Pro 3.1	65
Suitcase 2.1	45	System 7.5	59
Timbuktu Pro	105		

SPREADSHEETS

Lotus 1-2-3 1.1	286	MS Excel 5.0	225

WORD PROCESSING

MS Word 6.0	225	WordPerfect 3.0	45

MICROSOFT

Ancient Lands	35	Art Gallery	35
Cinemania	33	Creative Writer	33
Dinosaurs	35	Bookshelf 94	65
Encarta 95	65	Fine Artist	33

LEISURE

A10 Attack	42	A-Train Classics	19
Another World	25	Arthurs Teacher Trou	23
Chess Master 3000	23	C.Yeagars Air Combat	28
Crystal Quest 2	22	Crystal Crazy	34
Dark Seed	26	Dracula Unleashed	29
Harpoon Classic	19	Lemmings	25
Loony Labyrinth	24	Loony Tunes S Saver	24
Marathon	39	Monkey Island II	29
MS Flight Sim 4.0	32	PGA Tour Golf II	26
Prince of Persia 2	29	Sherlock Homes 3.0	29
Sim City 2000	26	Sim Tower	29
Spectre Supreme	28	Theme Park	33
Wolfenstein 3D	28		

Language Assistant £31

- Full document translation
- Powerful reference tools
- French, German, Italian, Spanish available

Power Translator Pro £339

- Bi directional
- Fast & accurate
- Bilingual interfaces & manuals for ease of use
- Bilingual voice output
- Shared dictionaries
- French, German, Russian,Spanish available

ALL PRODUCTS HAVE LIFETIME FREEPHONE SUPPORT

Globalink THE TRANSLATION COMPANY

LEISURE CDS

7th Guest	28	Flight Commander II	34
Flying Nightmares	32	Hell Cab	35
Jump:David Bowie	32	Myst	32
Theme Park	33	Rebel Assault	35
Return to Zork	35	Spectre VR	32
Star Trek Interactive	39		

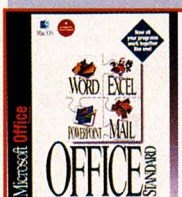
EDUCATION

3D Atlas CD	48	Distant Suns CD	39
Grolier Encylopedia	54	Just Grandma & Me	23
Kid Desk	26	Kid Pix 2.0	21
Mario Teaches Typing	24	Mario is Missing CD	27
Millies Math House	26	Mavis Beacon Typing	30
Peter & The Wolf CD	39	Putt Putt Fun Pack CD	24
Thinking Things	26	World Atlas 4.0	89

TRAINING CDS

QUAY 2 MULTIMEDIA TITLES

QuarkXpress V3.3	99	Adobe Photoshop V5	99
Illustrator 5 (inc Dimen)	99	Troubleshooting	99



£335 on CD

£329 on Disk

Microsoft Office 4.2

The complete business solution, comprising word processing, spreadsheet, presentation graphics and office management.

All applications are fully integrated and will work across platforms.

One of the friendliest suites in the world.

IMPORTANT NUMBERS

BOLTON	Sales	01942 794040
	Fax	01942 797979
EDINBURGH	Sales	0131-556 4114
LONDON	Sales	0171-582 4777
WOKING	Sales	01483 797676
	Fax	01483 799510
All Customer Services		01942 794020

CARRIAGE

HARDWARE/SOFTWARE

Standard UK 1 - 3 working day Delivery	£8.00
Next working day Delivery	£15.00
N Ireland/Highlands/CI/IOM 1-3 Days	Call
Saturday Delivery (Mainland GB)	£30.00

CONSUMABLES/SMALL ITEMS

Standard UK 1 - 3 working day Delivery	£4.00
Next working day Delivery	£6.50

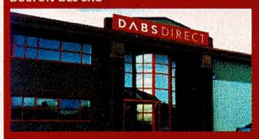
Call for quotes on other areas/times

PRICES ARE PER ORDER NOT PER BOX

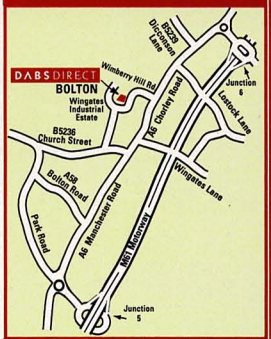
ALL DELIVERY TIMES ARE SUBJECT TO CLEARED FUNDS, BEING IN STOCK AND UNSOLD. *PLEASE ADD VAT TO ALL PRICES.*

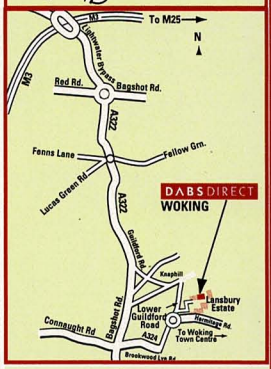
HOW TO FIND US

DABS DIRECT
DIRECT HOUSE
30 WINGATES INDUSTRIAL PARK
WESTHOUGHTON
BOLTON BL5 3XU



DABS DIRECT
THE LANSBURY ESTATE
102 LOWER GUILDFORD ROAD
KNAPHILL
WOKING
SURREY GU21 2EW





TERMS

EEC residents add 17.5% VAT to all prices except books. We also supply many products not listed here. Export orders welcome, carriage charged at cost. Official orders accepted only from public sector/education/listed PLCs. Prices listed are CWO (cheques, cash, credit/debit card, postal order, bank transfer, bankers draft). Surcharge applicable on business cheques using Transax.

Leasing finance available to businesses subject to status. Minimum order value £750, please call for details. Written details on request.

14 day credit terms available to public sector & quoted Plc's only. Add 2% to prices listed for credit.

Personal cheques over £1000 or without cheque card and business cheques which do not include Transax surcharge may take up to 14 days to clear.

Prices and manufacturers specifications subject to change without notification. Goods offered subject to being unsold. Goods not offered on a trial basis. All returns must have prior authorisation. All orders are subject to our Terms & Conditions, available upon request. Proprietor D. Atherton. E&OE [6.6.95].

Restocking fee charged on non-defective returns.
DUE TO CURRENCY FLUCTUATIONS ALL PRICES MAY CHANGE

TRANSAX DELTA VISA AMERICAN EXPRESS ACCESS

Excellent Quality • Superior Service • Unbeatable Value

ORDER NOW ON 0800 680000 • ORDER NOW ON 0800 680000

the internet magazine

.net

On sale 6 July

Truth

twenty-four times a second

The Internet captures the magic of cinema

The Net at Cannes

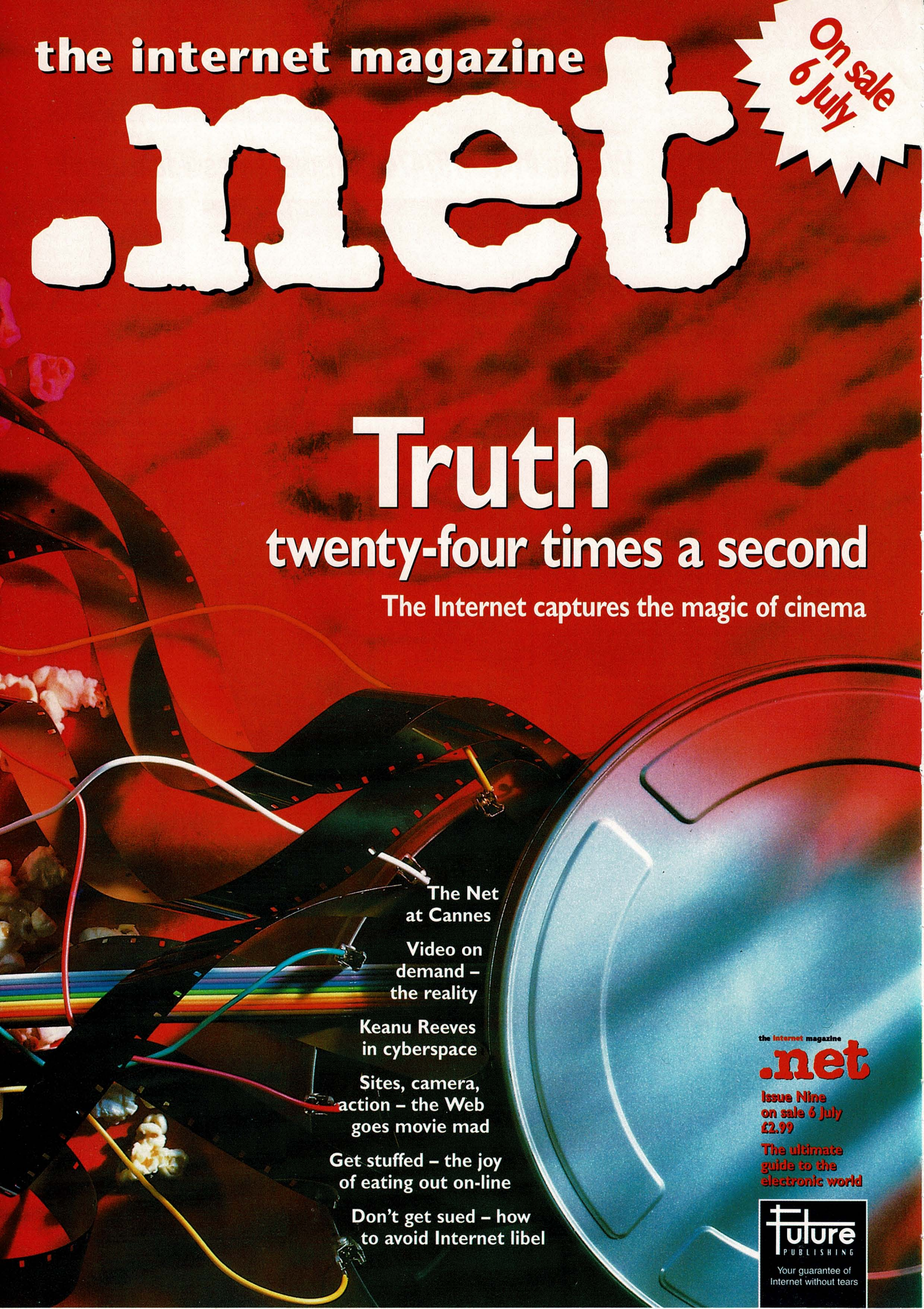
Video on demand – the reality

Keanu Reeves in cyberspace

Sites, camera, action – the Web goes movie mad

Get stuffed – the joy of eating out on-line

Don't get sued – how to avoid Internet libel



the internet magazine

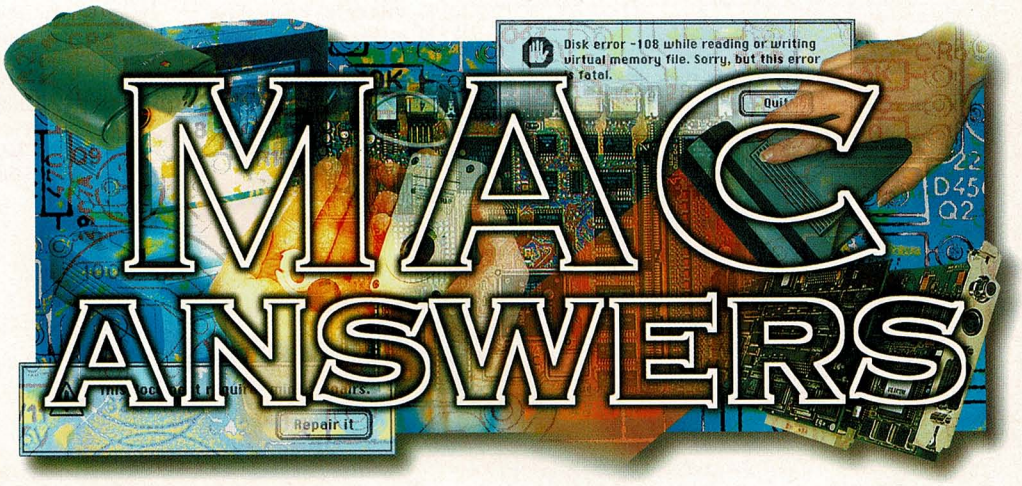
.net

Issue Nine
on sale 6 July
£2.99

The ultimate guide to the electronic world

Future PUBLISHING

Your guarantee of Internet without tears



Printer won't print? Network won't work? ROM won't run? Well don't worry, the MACFORMAT team of experts are here to solve your problems.

Welcome again to the section of the magazine devoted to solving your problems, and this month we have several detailed enquiries. This month's experts are Jim Chandler, Simon Cox and Derek Smith. Please note that we cannot answer queries over the phone. However, if you have a modem, you can e-mail your query (unless of course your problem is that your modem doesn't work). Send your problems to macformat@futurenet.co.uk and head them clearly MacAnswers.

Grey out

PRINTING

Q The greys on my screen never look natural or graduated, either on the screen or printed out on paper. Rather they look like malted shreddies and you can see plainly where one shaded area ends and the next one begins. What causes this?

I have the potential to upgrade, but wouldn't it be more economical to upgrade to something faster with built-in monitor support? I use the Mac every day for home DTP use, but as I'm not in business speed is not of financial importance. It'd just be nice to have a slight improvement.

Russell Prothero
Risca, Gwent

A I don't think I've heard graphics described in terms of breakfast cereal before. The problem here is your printer. And your video card. Your Mac is probably not guilty, though. The problem is that you've only got a two-bit video card. That's not a disparaging comment – according to your letter, you can only get up to four shades of grey on your screen. Obviously, if your Mac is trying to display more than four shades of grey, it'll have trouble. It gets around this by using a process called dithering – mixing pixels of different shades in patterns to simulate other shades.

This is what produces your shreddies effect. This is a software effect – the relevant colours and greyscales are handled by the Mac in their non-dithered form; it only displays them this way. If you buy a graphics card capable of displaying eight-bit colour, you'll get up to 256 greyscales on your monitor, giving you a much better idea of how the image should look.

A similar effect happens when you print. Your printer can only print black, so it simulates greyscales using a dithering effect in much the same way as your display. In non-PostScript printers like your DeskWriter, this is usually handled by the printer driver. Newer HP printer drivers have various dithering options, which may produce better results than your older driver. Hewlett Packard drivers can usually be obtained from bulletin boards and online services. Or you could ring Hewlett Packard on 01344 369369 and ask whether a more up-to-date driver is available for your particular printer.

As for upgrading your system, it's the same old trade-off of cost versus utility: how much will you pay to make your Mac work better? In your case, you need to increase the speed more than you need to increase the quality. A better video card sounds like a good upgrade, but you might benefit from a PostScript printer as well. Eventually, though, your Mac IIcx will be a bit long in the tooth, and there'll be cheap PowerMacs everywhere. **JC**

Communicate together

COMMS

Q I am a keen Mac user with a PowerBook 270c. I have a problem with my Express Modem. I have tried to connect to different bulletin boards using Apple Remote Access, but it doesn't work. My dad works for BT and uses File Wave *and* Remote Access *to connect with BT's computer in London. I read in* .net *magazine that MacTCP had something to do with how Macs connect to other computers but I don't know what this meant. I opened MacTCP*

Continued on next page

WHO'S JIM?

Jim Chandler has been working in the professional printing industry for eight years and uses all the major software applications on both Mac and PC compatibles.

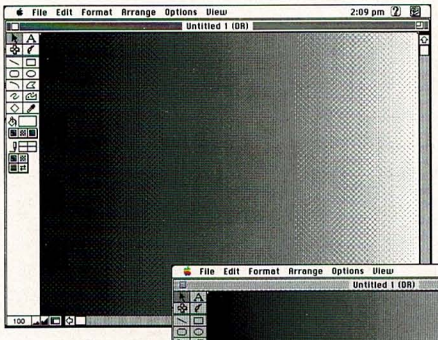
WHO'S SIMON?

Simon Cox is a real computer boffin with a PhD in computer science, and has been using Apples since the original Lisa.

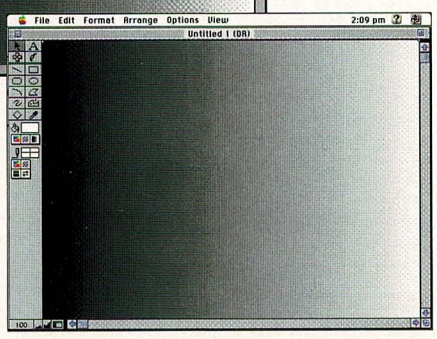
BOOT TIP

To stop your Mac from booting off a disk in the floppy drive, hold down the mouse button before it starts loading off the disk. The disk will eject and the Mac will boot from the hard drive.

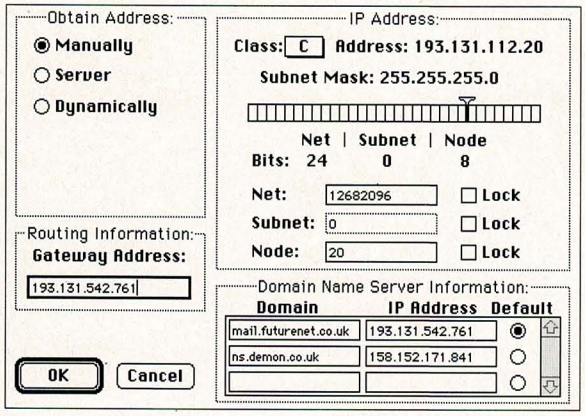
It is an ex Mac, it has ceased to be.



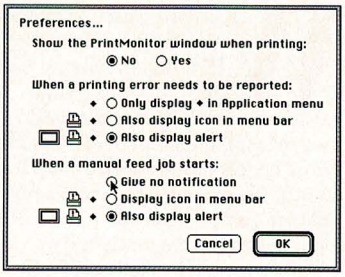
On black and white monitors and printers, graduated patterns will look like this, while…



… on colour monitors and printers, they will appear much smoother, without the banding effect. See 'Grey out'.



The MacTCP Control Panel enables you to connect to the Internet via a gateway service such as Demon or CompuServe. Here I'm connected using our own FutureNet. See 'Communicate together'.



The *PrintMonitor* preferences screen offers many useful printing options on your Macintosh, but do you know how to get to it? See 'Manual Labour'.

in the Control Panels but could not change anything because the Protected box had been checked. Could you please tell me how I can connect with bulletin boards, and what software I might need?

Daniel Wilson
Selby, North Yorkshire

A Welcome to the baffling world of communications, Daniel! Already, you've discovered three incompatible ways of connecting computers together, without even trying.

First of all, let's deal with a simple connection to a bulletin board. You've already got the computer and the modem, so you just need the software to connect you up. *Apple Remote Access* enables computers to connect to AppleTalk networks over the telephone. Bulletin boards don't use AppleTalk networks, which is why this doesn't work. You need a program called a terminal emulator. There are dozens of these knocking around, but you could do a lot worse than a shareware offering called *ZTerm* (check out the Classifieds section in MACFORMAT, starting on page 142, for various companies that supply shareware catalogues). Once you've added the numbers of the bulletin boards to *ZTerm*'s phone book and set up your modem speed, you should be able to connect your Mac to most bulletin boards.

MACFORMAT's sister magazine *.net* deals with all Internet related matters and mentions MacTCP because it's vital if you want to get connected to the Internet. The Internet is different from normal bulletin boards in that it's effectively a large network. Just as Macs have their own networking system, called AppleTalk, the Internet has a networking system called TCP/IP. MacTCP is a Control Panel enabling Macs to use the TCP/IP protocol. It's tricky to set up, and many system managers lock it against inadvertent (or deliberate) fiddling. The key is another Control Panel called *Admin TCP*. It sounds like your copy has been locked to prevent accidental damage. With *Admin TCP*, you can unlock MacTCP and change its parameters, but my advice is to leave well alone unless you know what you're doing. **JC**

PRIVATE TYPIST

If you are a touch typist and want to type in privacy, start by making your text white. When you are finished, choose **Select All** and return your text to black.

Manual labour

PRINTING

Q *When I'm printing a document with the manual feed option selected, a series of dialogue boxes appear telling me that the printer is waiting for a sheet of paper, then that the document is ready to be printed. I have tried changing the printer preferences and selecting a different driver, but this has been to no avail. Although this is only a small problem, it's really annoying when it happens every single time.*

Darren Mitchell
Edenthorpe, Doncaster

A I had this problem years ago. After a few hours fiddling with *ResEdit* I

SHUT THAT WINDOW

Normally when you start up, whatever windows were open when you shut down will open up again. Hold down **[option]** during start up to prevent the windows from opening.

ALL THINGS AUDIO VISUAL

Second hand advice

HARDWARE

Q *I have recently purchased a second-hand Centris 660AV and am thinking about getting an Internet connection. I know that AV machines have built-in fax/modem capabilities if connected through a GeoPort adaptor, but I cannot find much more info than this in the manuals and I wondered:*

1. Is the modem capability of AV machines suitable for Internet connection?
2. How fast is the modem capability in this machine?
3. Does the modem capability include error correction and the equivalents of V32bis etc?
4. Is the internal modem capability Hayes compatible?
5. As a GeoPort adaptor is about £100, would I be better off ignoring the built-in capability and paying the extra for a 14400 or 28800 external fax modem?

Ray Rand
Builth Wells, Powys

A You're labouring under a small misapprehension here. The AV machines, and the PowerMac 6100, 7100 and 8100 machines, all have GeoPort, which is Apple's new high-speed serial port standard. The GeoPort is faster and more flexible than the Mac's traditional modem port, and GeoPort equipped Macs handle the tasks usually done by a modem by using the Digital Signal Processor chip (in the case of an AV Mac), or the spare power of the PowerPC processor (in the case of a PowerMac), to do the necessary signal processing that is a modem usually handles. If you buy Apple's GeoPort Telecom Adaptor, you can connect your Mac's GeoPort to a telephone line, and use the supplied software to emulate a modem and send faxes.

1. Yes, once you've bought a Telecom Adaptor, you should have the equivalent of a modem which is fast enough to be useful for accessing the Internet.
2. Officially, the Telecom Adaptor allows a connection of up to 9,600 bits per second. In practice, though, it will quite cheerfully handle 14,400 bits per second. With improvements to the software and/or the adaptor hardware, it should be possible to increase this still further.
3. The Telecom software emulates a normal V42bis modem, giving V42 or MNP5 error correction.

Apple's GeoPort adaptor enables AV Macs and PowerMacs to connect directly to the telephone line without a modem.

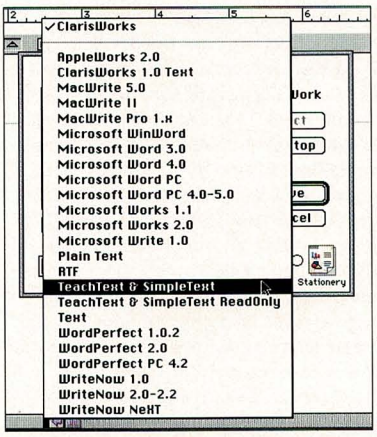
4. Yes, the modem software will respond to the Hayes AT command set which has become the standard way of controlling modems.
5. If you intend to use the Internet, then my advice is to buy the fastest modem you can afford. It is likely that future Telecom Adaptors and their attendant software will be faster than 14,400 bits per second. But for the time being, unless you want the GeoPort's telephony and answering machine capabilities, you might do better to pay a bit extra and go for one of the new V34 28,800 bits per second modems. They're more ex-

DESKTOP TIP

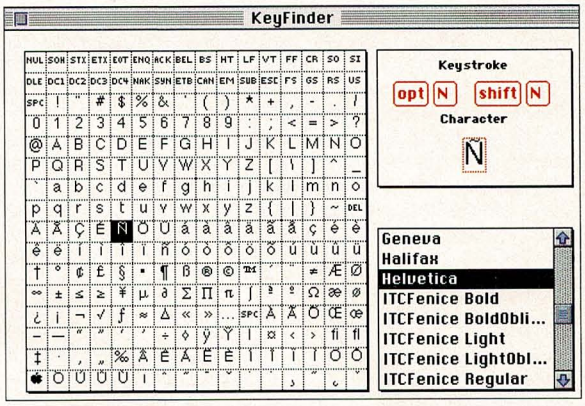
To rebuild the Desktop of a floppy disk, hold down **[command]** and **[option]** as you insert it into the drive. However, there has to be at least one file on the disk (even just an empty folder will do) for rebuilding it to work.

HYPERCARD PAINT

If you are using *HyperCard*, press **[option] [tab]** at any time to show the painting tools palette.



Using the utility on this month's floppy disk you can create *SimpleText* files with graphics in them. See 'Not so simple'.



KeyFinder is a marvellous little utility that comes as part of *Norton Utilities*, and shows all the characters a font contains on one screen. See 'A font abroad'.

struck upon the solution. It's simple, but only when you know how!

When you're printing, select Print-Monitor from the application menu in the top right hand corner, and choose **Preferences** from the **File** menu. The dialogue box is self explanatory and contains some useful options. Don't you just want to kick yourself? **DS**

Not so simple

SIMPLETEXT

Q *How do you get a picture into a* SimpleText *document? I can't seem to copy and paste. What's going on?*
Brian Allan
Norwich, Norfolk

A *SimpleText* is a wonderful application, but is, as the name suggests, simple, and cannot handle graphics being pasted into it. There is a very complex method using *ResEdit* but I don't recommend it.

The simplest method is to use an application such as *ClarisWorks*, which uses the Claris XTND system. There's a copy of the SimpleText XTND translator on this month's MACFORMAT floppy disk and CD. Just pop this into the Claris Translators folder in the Claris folder, which you should find in the System Folder.

Now open a new word processor file and create your document. Any graphics should be pasted in the text, not as free floating items. Choose **Save As** from the **File** menu, and use the pop up menu to save your file as **TeachText & SimpleText**. If this option doesn't appear, open the **Preferences** folder in the System Folder and trash the XTND translator file. **SC**

A font abroad

FONTS

Q *My question concerns some shareware fonts I have. It seems the fonts are meant for the English keyboard without Scandinavian accents (Å, Ä, Ö, etc). Is it possible to modify these fonts using* ResEdit, *or do I just have to use the fonts as they are?*
Jarmo Pasanen
Helsinki, Finland

Q *I would like to order some new fonts for my Mac, for instance the Monotype FontPack, but I'm afraid I couldn't use them for texts in Hungarian, because the Hungarian alphabet has several special*

Continued on next page

SYSTEM 7.5 TIP

A tip for 7.5 users with a hierarchical Apple menu, is to make an alias of your hard drive and place it in your Apple Menu Items folder to have access to everything on your hard disk.
Ian Stewart via Internet

pensive than the Telecom Adaptor, but their prices are dropping all the time, so you'll have to figure out how much you want to spend and base your decision on that. All I can tell you is that however fast your link with the Internet is, you'll very soon want a faster one! **JC**

I just called

HARDWARE

Q *I would like to know about using my 660 AV as an answering machine/telephone.*
1. Do I need special software to allow this?
2. Is there somewhere I could find out more about the AV capabilities? Are there any books, BBSs, or other programs that relate specifically to AV Macs?
3. Is there to be a DOS-compatibility card made available here in Britain for the 660, and if so will this necessarily replace its DSP and so remove its AV or GeoPort facilities?
Ian Craigie
via the internet

A AV Macs (audio visual) such as the 660AV and 840AV are special, because, as well as being able to sample and replay sound at near CD-quality, the AV machines can also digitise and output moving video.

What's more, the 660AV and 840AV were the first Macs to include Apple's new GeoPort technology. By connecting the relevant adaptor to the GeoPort socket, it's possible to use it for all kinds of communications purposes, although the only adaptor Apple have released so far is their Telecom Adaptor (see 'Second Hand Advice' for more details).

As if that weren't enough, Apple released a new piece of speech-recognition software called PlainTalk, to work with the AVs. So now your Mac can respond to your spoken commands and read text documents out loud. What makes the AV machines capable of these minor miracles is a chip called a Digital Signal Processor, which takes over the more complex parts of the AV's special features. Which leads us on to your questions:
1. It is possible to use your 660AV as a hands-off telephone and answering machine, using a piece of software from Apple called *MegaPhone*. You've got an Internet connection, so try pointing your World Wide Web client at http://www.support.apple.com/ and downloading *MegaPhone*. While you're there, you might want to download the latest version of the GeoPort telecom software, too.
2. When Apple introduce a new machine, they also publish a set of technical notes for that machine, to enable programmers to use any new capabilities that it might have. These tech notes are often available on Apple's Web server, at the URL listed above. Try looking there for notes on the 660AV.
3. It seems very unlikely that Apple will bring out a DOS-compatibility card for the 660AV considering that the 660AV has been discontinued. Your best bet is likely to be one of the new Reply DOS on Mac cards. There isn't one for the 660AV yet, but the range seems to be growing almost daily. Reply cards are distributed by Simms International, who you can contact on 0181 870 4020, and the range starts at about £625. If a card becomes available, it will fit in the 660's processor direct slot, and effectively run as a separate machine in the same case as your Mac. It should not affect any of its AV or GeoPort functions. **JC**

POWERBOOK

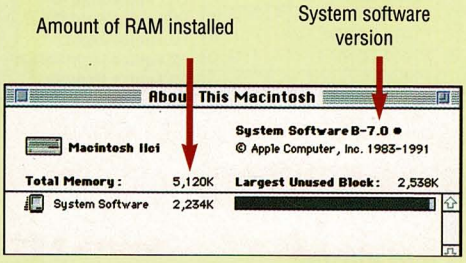
To run 256 colour programs on a PowerBook with only 16 colours, plug the monitor adaptor into the PowerBook, even if there is no external monitor to connect it to. Then start up the PowerBook, select video mirroring, and restart.
Michael Rasmuson via Internet

HYPERCARD

In *HyperCard*, when a painting tool is selected, press **[tab]** to bring up the pattern palette.

The do-it-yourself problem solving guide...

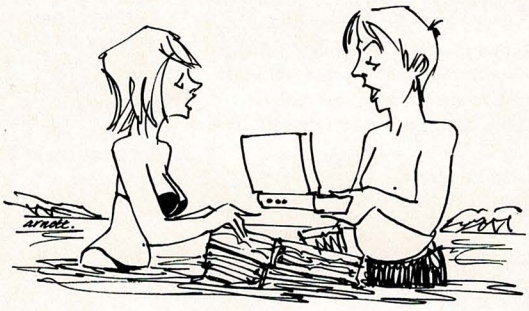
One of the main causes of problems on the Mac is Extensions or Control Panels clashing in the depths of your System Folder. Fortunately, it's easy to check if this is the case. Restart your Mac and hold down the [shift] key. You can let go of the key when you see the message 'Welcome to Macintosh. Extensions off'.



If everything now works, then the problem lies in your System Folder. The only way to work out which item is the culprit is by trial and error. Remove a few Extensions and or Control Panels, then restart your Mac without holding [shift] this time. Keep going until the problem no longer occurs, and you have located the offending software.

If this doesn't work, another common solution is to rebuild your Desktop. Start up your Mac with [command] and [option] held down. You will get a message asking if you want to rebuild the Desktop. Click OK and see if this solves your problem.

If the problem persists then use the form below to ask our experts. We'll need to know a few facts about your Mac, so when you're in the Finder, select About This Macintosh from the Apple Menu. The picture (left) shows what we'll need to know.



It says 'Help, I'm trapped on a desert island with no stationery'.

letters. Please could you let me know if you know about any public domain or shareware software that I can use to create these special vowels.

Attila Botka
Budapest, Hungary

Most shareware fonts are designed by amateurs for special projects or just for fun. They are designed for the Roman alphabet and lack the vowels used by many European languages, although it's worth using the *Key Caps* utility that came with your Mac to check which characters are available in your fonts. Just press the **[option]** key, and *Key Caps* will show you the other letters on your keyboard.

Most commercial fonts include vowels with a diaresis or umlaut (ä, ë, ï, ö, ü, and even ÿ for all you Finns), and some have other diacritical marks as well. Designing a font requires a program such as *Fontographer* (£428 from Softline on 0181 401 1234) and takes a lot of effort, so many amateur designers don't bother with what are for most English speakers the more esoteric accents and punctuation marks. Some shareware fonts don't even have lower case letters!

However, most commercial fonts do include these characters (though unfortunately not the punctuation marks peculiar to Hungarian and Turkish, like ő), so you should still be able to get hold of interesting and useful fonts – as long as you're prepared to splash out for them.

As for using *ResEdit* to alter the fonts, I'm afraid it won't help you. You can use *ResEdit* to open the resources in bitmap fonts, and you can make changes to the characters, but scalable fonts, like PostScript or TrueType fonts, can't be altered in this way.

Things may soon get better, as QuickDraw GX becomes more popular. QuickDraw GX fonts can contain thousands of characters, so many of the commoner fonts will probably contain eastern European diacritical marks as standard, but this will lead to another problem – with so many characters in a font, how will you find the ones you need? **JC**

If you send in a question for the MACFORMAT experts to solve, please fill in and include this form (or a copy of it). And please make sure that you include all the relevant details – version numbers of software and so on – so that we have the best chance of helping you. Send your form and question to: **Mac Answers, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW. Or fax it to us on 01225 446019.**

Name .....

Address .....

.....

.....

Your Mac
(For example, Performa 200, IIfx, PowerBook 145):

.....

System version
(see About this Macintosh screenshot above): .....

Amount of RAM
(see About this Macintosh screenshot above): .....

Are you using Virtual Memory? ..... **YES/NO**
(This is accessed from the Memory Control Panel under System 7)

Do you have 32-bit addressing turned on? ..... **YES/NO**
(This is accessed from the Memory Control Panel under System 7)

Details of any relevant hardware which could help us to answer your question:

.....

.....

Now, use this space to describe your problem or question.

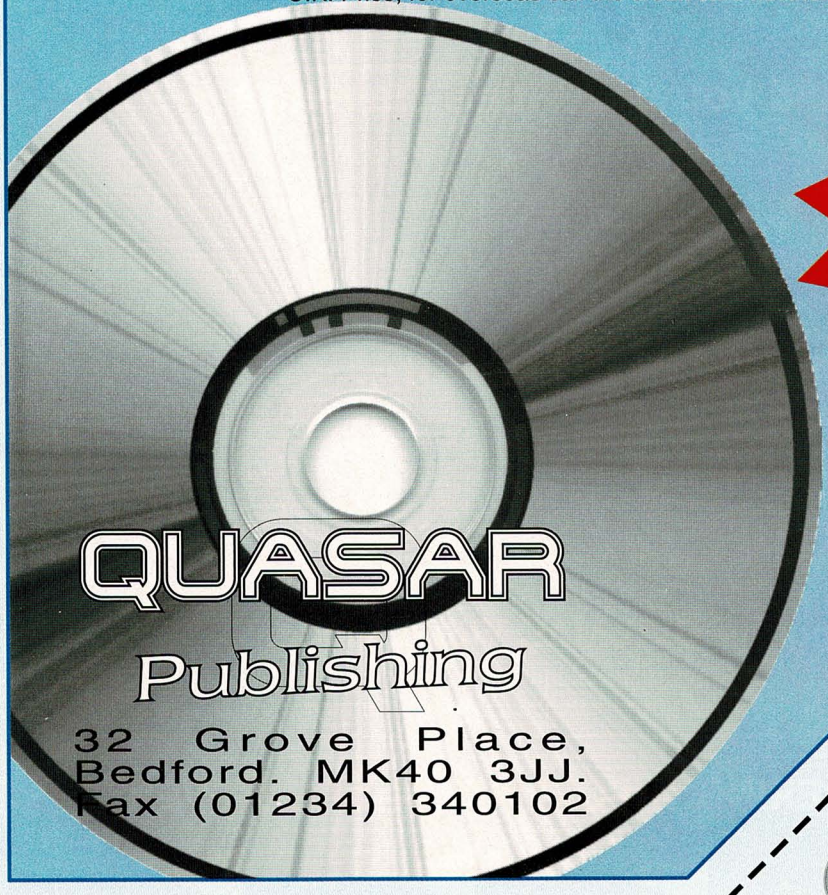
Include as much relevant information as possible.
Please continue on a separate sheet if necessary.

WHERE CAN YOU FIND THE LATEST PRODUCT DEMO'S, CATALOGUES AND INFORMATION?

THE FIRST EVER MAC DIRECTORY ON C.D.ROM!

- **First issue completely free!**
- **Updated every two months with information from Apple.**
- **Interactive Macintosh Catalogue.**
- **Product demos and reviews.**
- **5 Issues for only £19.99***

* U.K. Price, for overseas call the credit card hotline.



I enclose a cheque (made payable to "Quasar Publishing")

Please charge my Access/Visa card

Card No .....

Expiry Date .....

Signed .....

Name ..... Position .....

Company .....

Address .....

.....

Tel No .....

All details correct at time of going to press, however some changes may be made to the final C.D.ROM. Please allow 28 days for delivery.

Software Training Videos

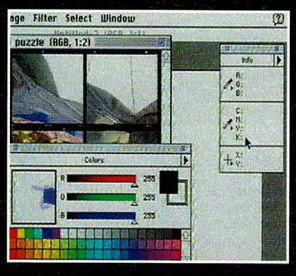
- ✓ Guaranteed to improve your productivity
- ✓ Higher retention than any other training method
- ✓ Up to four learning levels
- ✓ Learn at your leisure - at home or in the office
- ✓ English presenters - superb quality
- ✓ Produced by Europe's No. 1 training video supplier
- ✓ Optional interactive disks for each of our videos
- ✓ Just £19.99 + VAT each

£19.99 +VAT each

£49.95 +VAT for three

Why should you use Video Training?

There is an old axiom in education - 'I hear and I forget, I see and I remember, I do and I understand' and another one in presentations - 'a picture is worth a thousand words'. Put the two together and you end up with video - you see, you hear and with a learning disk full of examples you get to do as well.
Our videos enable you to learn faster, retain more and make the most of your software's features.



Why use BVG Training?

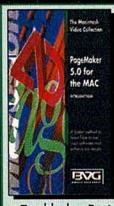
Research shows that up to sixty percent of software package features are unused. People glance at the manual just to come to grips with the task in hand... and never look any further. The alarming fact is that often the most important features of the software remain unused, substantially reducing productivity. Effective software training can transform anyone into a Power User in a matter of hours, increasing productivity without the need to read boring manuals. BVG leads the market in effective, enjoyable and most important of all affordable training.

Dealers currently stocking the BVG MAC Video range.

Clwyd Computers 01745 814 156, Gasteiner 0181 345 6000, Gordon Harwood Computers 01773 836 781, Jigsaw 0115 942 2990, Mactrix 0181 398 4181, Mac Point 0121 333 3448, Mygate Computing 0181 742 8947, Tasha Computers 0181 742 8947.

FOR TITLES AVAILABLE & ORDERING INFORMATION SEE REVERSE

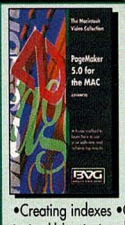
The Mac Video Collection



Learning PageMaker 5.0 for the MAC Introduction

•The screen layout •The PageMaker environment •The Command key •Menus •Toolbox •Text blocks •Designing a publication •Editing publications •Using graphics •Using guides •Correcting errors •The Story Editor •Using the Find and Change commands •Multi-page publications •Printing options

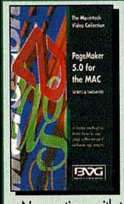
Order Code MA0001 **£19.99 + VAT**



Learning PageMaker 5.0 for the MAC Advanced

•Creating a newsletter •Creating master pages •Designing headers and footers •Using column guides •Creating new styles •Adding jump lines •Creating indexes •Creating a table of contents •Using text and graphics •Using text wrap around graphics •Working with colours •Output and printing with colours •Advanced text options •Using the text rotation tool •Control palette •Placing rules between paragraphs •Using the table editor •About linking

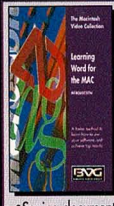
Order Code MA0002 **£19.99 + VAT**



PageMaker 5.0 for the MAC Secrets and Timesavers

•Moving around the publication •Ruler options •Working with PageMaker guides •Selecting text •Using styles •Power pasting •New options with text •Special characters •Timesaving keystrokes •Indexing tricks •File management techniques •Identifying layout problems •Extras for using the story editor •Using Open Template •Preferences and defaults •Using the table editor •Creating drop caps •Setting bullets •Creating special effects

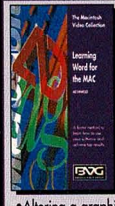
Order Code MA0007 **£19.99 + VAT**



Learning Word 6.0 for the MAC Introduction

•Learning the environment •Using the pull-down menus •Tool bars, rulers •Entering text •Deleting text •Saving documents •Selecting a document view •Manipulating text •Changing text appearance •Discussing tabs, indents •Line spacing, margins •Using search and replace •Spell checker •Formatting pages •Centering a page •Printing documents •Using help

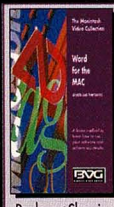
Order Code MA0003 **£19.99 + VAT**



Learning Word 6.0 for the MAC Advanced

•Changing fonts •Creating a new tool bar •Advanced formatting •Explaining page setup options •Changing colours •Altering a graphic •Changing line types •Discussing kerning •Styles •Modifying styles •Working with tables •Placing text into columns •Using footnotes, endnotes •Indexing documents •Document protection •Changing document format

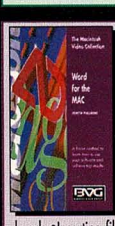
Order Code MA0004 **£19.99 + VAT**



Word for 6.0 the MAC Secrets and Timesavers

•Discussing cursor movement •Using the Go To command •Explaining Cut, Copy and Paste •Undo and Redo commands •Using Find and Replace •Showing the Format Painter •Inserting a dot leader •Creating bullets/Templates •Working with macros •Using Autotext/AutoCorrect •Creating a new menu •Adding commands •Discussing styles •Combining text and graphics •Working with tables •Creating a mailing/Outline

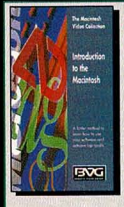
Order Code MA0013 **£19.99 + VAT**



Word for 6.0 the MAC Desktop Publishing

•Discussing different views •Setting up columns •Making a two-page newsletter •Using the Newsletter Wizard •Entering text into subheads •Inserting files into documents •Creating a masthead •Using different column sizes •Creating a style/Inserting a graphic •Creating a tri-fold brochure •Using dot leaders/Adding bullets •Placing horizontal lines •Working with graphs •Using frames, captions •Creating a multi-page newsletter •Making a footer

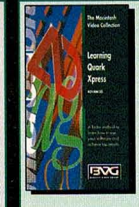
Order Code MA0014 **£19.99 + VAT**



Introduction to the Macintosh

•Starting up the MAC •Understanding the MAC •Keyboard shortcuts •Accessories •Word Processing •Working with documents •Printers •PostScript printers •Fonts •Top Ten Programs •Troubleshooting •System folder •Option keys •Lost files •Changing the background pattern •Colour-coding icons •Views •Using the Microphone •Principles of Performa •About At Ease

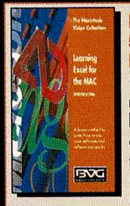
Order Code MA0010 **£19.99 + VAT**



Learning Quark Xpress 3.3 Advanced

•Advanced formatting •Dragging and dropping text •Manipulating graphics •Hanging indents, drop caps •Altering document layouts •Creating shadows •Grouping •Changing preferences •Changing page orders •Setting spacing, alignment •Importing graphics •Anchoring graphics •Using Find/Change •Linking text •Using Unlink •Creating a publication •Checking spelling • Using style sheets

Order Code MA0006 **£19.99 + VAT**



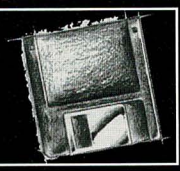
Learning Excel 5.0 for the MAC Introduction

•Explaining the environment •Opening workbooks •Filing, editing cells •Copying, formatting cells •Moving cells •Demonstrating Undo •Clearing a cell •Creating formulas •Showing AutoSum •Demonstrating column, row widths •Using Function Wizard •Creating workbooks •Using AutoFill •Formatting information •Inserting rows •Renaming shett tabs •Adding trendlines, error bars

Order Code MA0008 **£19.99 + VAT**

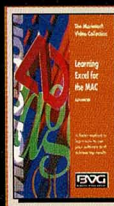
OPTIONAL 3.5 INCH DISKS

are available for most of our videos containing example material to enable you to either practice the tasks in your own time or whilst watching the video



£19.99 +VAT each

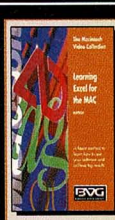
£49.95 +VAT for three



Learning Excel 5.0 for the MAC Advanced

•Explaining Blanks, NonBlanks options •Creating a custom AutoFilter •Making a custom location data series •Using Autofill •Importing a previously created list •Creating outlines •Hiding worksheet parts •Dividing a worksheet into panes •Creating manual outlines •Grouping specific rows and columns •Using Ungroup •Explaining the pivot tables •Pivot Table Wizard •Manipulating various buttons •Using the Chart Wizard •Renaming the worksheet tab

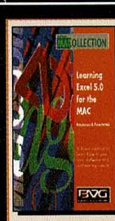
Order Code MA0009 **£19.99 + VAT**



Excel 5.0 for the MAC Macros

•Explaining, recording and attaching macros •Explaining Visual Basic modules •Discussing comments/Arguments •Personal Macro Workbooks •Recording macros to a menu •Creating buttons & custom toolbars •Adding a custom button •Assigning macros to a custom button •Enlarging toolbar buttons •Customising Excel's toolbars •Creating a custom macro button •Attaching a toolbar to a workbook •Attaching a macro to a picture •Working with User-defined functions •Adding dialog boxes

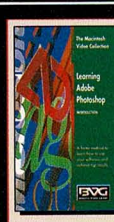
Order Code MA0015 **£19.99 + VAT**



Excel 5.0 for the MAC Formulas and Functions

•Covering formulas •Comparison/Arithmetic operators •Joining/Comparing values •Displaying formulas •Cell reference/Operators •Creating 3D ranges •Array formulas - Editing •Explaining functions/Arguments •Using the financial function •Using a database •Creating a criteria range •Figuring average yield/Deviation •Engineering and information •Math and Trigonometry •Statistical and Text formulas

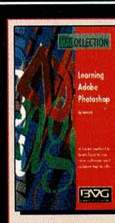
Order Code MA0016 **£19.99 + VAT**



Learning Adobe Photoshop 2.5 Introduction

•Learning the environment •Listing features •Defining pixels •Discussing the tools •Using the Oval tool •Lasso tool •Demonstrating the Magic Wand •Different fill patterns •Scanning images •Using the selection tools •Reverting •Duplicating images •Converting to gray scale •Feathering, blurring •Resizing images •Adding colours

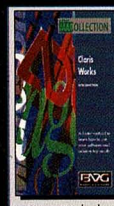
Order Code MA0012 **£19.99 + VAT**



Learning Adobe Photoshop 2.5 Advanced

•Using the magic wand •Lasso tools •Creating transparent type •Using the QuickMask mode •Saving, loading channels •Comparing, adjusting image proportions •Copying, pasting •Adjusting skin tones •Using channels •Kerning, editing type •Offsetting selections •Creating shadows •Creating blends •Making fades •Composite images •Converting greyscale to colour •Using duotone curves •Controlling ink distribution •Creating sepia-tone images •Colour blending greyscale images •Destructive filters •Creating special effects •Creating images using special effects

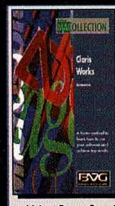
Order Code MA0019 **£19.99 + VAT**



Claris Works 2.1 Introduction

•Creating a new document •Using the rulers •Shortcuts Palette •Printing documents •Cutting, pasting blocks •Using Find and Change •Creating headers and footers •Spell checking documents •Using the thesaurus •Creating a database •Formatting the data •Changing the tab order •Aligning objects •Making reports •Drawing simple objects •Using the palettes •Defining the draw tools •Setting the perspective •Blending colours •Working with spreadsheets •Adjusting columns, rows •Adding formulas •Page breaks •Altering borders •Creating charts •Splitting panes

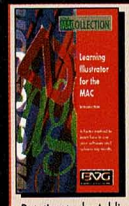
Order Code MA0017 **£19.99 + VAT**



Claris Works 2.1 Advanced

•Advanced text formatting •Adding footnotes •Using the Auto Grid •Scaling objects •Using the Paint Can •Free Rotate •Editing master pages •Relative, absolute •Using Paste Special •Locking •Advanced charting features •Defining chart ranges •Creating text frames •Charting databases •Importing, exporting files •Making a form letter •Mailing labels •Changing preference settings •Using Outline •Creating a slide show

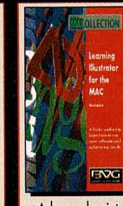
Order Code MA0018 **£19.99 + VAT**



Learning Adobe Illustrator 5.5 Introduction

•Illustrator's environment •Using the tools •Selecting objects •Changing object location •Aligning, grouping objects •Using the Grabber Hand •Setting preferences •Using the Rotation tool •Adding, deleting points •Working with pen paths •Creating templates •Colour palettes •Creating custom colours •Making a gradient colour •Working with patterns •Blending colours •Editing layers •Joining elements •Using the Zoom tool •Constraining objects •Saving documents •Printing documents

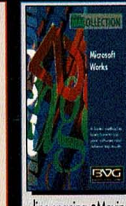
Order Code MA0020 **£19.99 + VAT**



Learning Adobe Illustrator 5.5 Advanced

•Working with filters •Hiding edges •Transforming objects •Auto Trace tool •Reflection tool •Stacking objects •Editing patterns •Advanced paint options •Masking •Distorting text •Editing text •Changing the kerning •Working with Text Wrap •Creating graphs •Using the Graph tool •Making a drop shadow •Using the Scissor tool •Advanced colour options

Order Code MA0021 **£19.99 + VAT**



Microsoft Works 4.0

•Opening Works •Learning about the Startup box •Opening a new document •Learning about the Tools Palette •Using an AutoStart template •Creating an invoice •Automatic Calculations •Creating a certificate •Using the bullets button •Tabs and line spacing •Moving blocks of text •The spell check tool •Saving & printing a document •Creating foot notes and columns •Entering text on a spreadsheet •Changing sizes of cells •Entering formulas •Protecting cells •Creating & naming a chart •Creating a title •Modifying a title •Creating fields for a database •Marking records •Printing marked records

Order Code MA0017 **£19.99 + VAT**

BVG

BURGESS VIDEO GROUP

Unit 18, Industrial Estate, Brecon, Powys, Wales LD3 8LA

24HR ORDER HOTLINE

☎ 01874 611633

FAX ORDERS : 01874 622994

Access VISA MasterCard

No.of units	Product number	Cost
	VAT	
	Postage & packing charge	
	TOTAL	

Remember to add P&P to **each video** UK £1.50, Europe £3.00, Others £5.00

NAME

ADDRESS

POSTCODE

Cheques made payable to **Burgess Video Group**

Please charge my VISA/ACCESS ☐

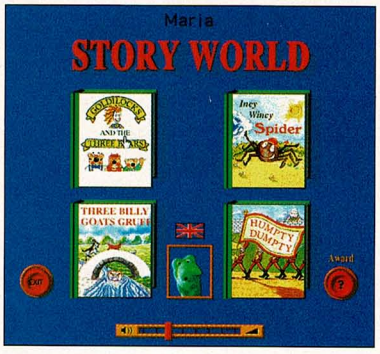
059

EXPIRY DATE / /

SIGNATURE

Story World 1 and 2

Young kids will always love stories, games and songs. These two excellent CD-ROMs from Heinemann's ELT educational series happily combine all three...



The main menu screen lets you choose between four stories and their related activities.

Let's get one thing straight. These two CD-ROMs are not exactly stupefying examples of the power of cutting edge multimedia technology. There's nice digitised sound but no full motion video, precious little animation, no fancy hypertext links and not an awful lot of depth.

But then you've got to think of the market. These are CD-ROMs for kids, after all. The lack of animation is a bit of a downer, but in all other respects, your kids aren't going to know any better. In fact, the format of the stories and games is exactly what kids are used to – and what they love. There's also a lot to see and do when you look at the packages more closely.

Spin a yarn with the demo of *Story World* on this month's CD-ROM

To begin at the beginning, though, each CD-ROM is a collection of four stories. And each story consists of a (short) series of stills from an on-screen book accompanied by an audio narrative. It doesn't take long to go through each story.

But the stories are also accompanied by little colouring-in exercises, where you have a black and white outline picture and a little paint palette to colour it in with. Click on a colour and the program speaks the name of the colour. Click on an area of the picture and it fills it with that colour.

There's also a little game, where you might for example have to spot where characters in the game are hiding (a rabbit might be betrayed by a pair of ears peeping out from behind a bush). You have to click where you think the rabbit is and – if you get it right – out pops the rabbit. Another game shows you several clocks, all displaying different times. A time is read out loud, and you have to click on the clock displaying that time.

There's also a variation of the old card-matching game, where eight cards are placed face-down and you have to click on pairs of cards, trying to find matches – it relies on you remembering where cards are when you get it wrong and they're turned back over again.

So although there are only four stories per CD-ROM, and the stories themselves are short and uncomplicated, there are games and other activities associated with each one. And the 'difficulty level' does slowly increase from one story to the next in the series, catering for different ages and stages of development.

It's looking better already. And then, on top of that, these are audio CDs too, so they'll play on a hi-fi. Each one contains 17 to 20 audio tracks, separated into small sets related to each story. Each set of audio tracks might contain a spoken story, a game you can join in with and a song or two.

The on-screen games and stories are helped along by a dinosaur-type creature who hosts the whole series and occupies a small window ready to offer spoken advice and help whenever you click on it. Bizarrely, he can speak in one of 18 different languages – although the stories continue to be read out – and spelt out – in English. This seems a bit cockeyed at first, until you figure out that these are tools for teaching spoken and written English. So having a multilingual commentator is perfect for non-English-speaking kids using the software to learn English. It's a bit bizarre to have a two-inch lizard barking out instructions in Japanese half way through Red Riding Hood, though...

The *Story World* CD-ROMs have

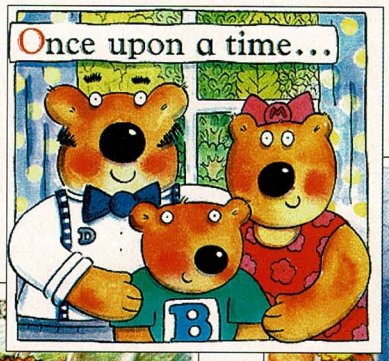
CHILD'S PLAY

If you've got a Mac with a microphone, you've got another option – as well as listening to the stories in the on-screen books, kids can also record their own spoken versions and play them back later.

SPECIAL OFFER

MACFORMAT are pleased to announce an exclusive special offer to all our readers. Buy disc one of *Story World* and get disc two (worth £34) free with no extra charge for postage and packing. For details see the Story World folder on this month's cover CD.

This is what happens when you get greedy. And you live in a river. Under a bridge. But anyway, it's allegorical, so the details don't matter.



Is it my imagination, or does Papa Bear look like Pa Larkin? All the story graphics are colourful and well-drawn – some animation would have been nice, though.

Jack's mum is not at all happy that he swapped the family ruminant for some pulses.

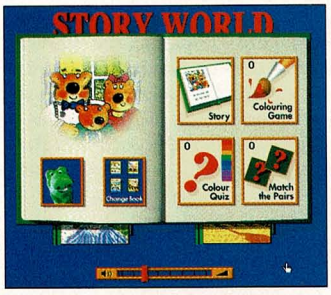
The *Story World* CD-ROMs each contain four well-known nursery tales. Here's Incy Wincy spider recovering from a dousing.

actually been thought out very well, both on an entertainment and an educational level. As you read a story and do the paintings and associated games and puzzles, you are awarded gold stars according to your performance – good grief, I can remember those gold stars from infant school now. And there's a section for parents and teachers where they can record their children's/pupils' scores, the total time they spent and more. In fact you can pre-register up to 40 children – great for teachers and a very nice personal touch.

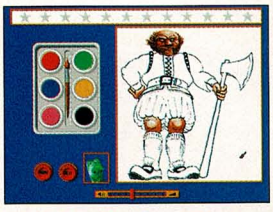
A depressing amount of infotainment and educational software is shallow, crude and overpriced. A very quick glance at these two CD-ROMs could leave you suspecting that applied here. However, the longer you spend with them, the more clever touches and nice features you discover. Unlike many similar CD-ROMs, there really is a lot to see and do here. And it's been made very friendly and flexible for parents and teachers too.

Ultimately, you've got to look at these not from the viewpoint of sophisticated and demanding adults, but from the viewpoint of little kids. And, for children, these *Story World* CD-ROMs are just perfect. **ROD LAWTON**

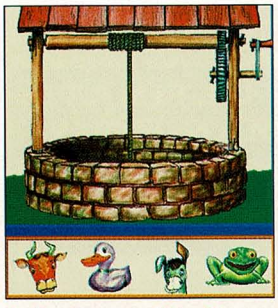
Can you match the remaining two cards in this Humpty Dumpty game? There are always only eight cards in this game, even on the more advanced stories.



Once you've decided on the Three Bears, you can choose between reading the story, colouring a picture, a little quiz and matching pairs of cards.



The 'Jack and the Beanstalk' painting game. Use the brush cursor to click on a colour, then click on an area to fill it with colour.



You have to guess which of these creatures is down the well from the sound you hear.

STORY WORLD 1 AND 2

Price: £34.00 each. Out: now.
Requires: LCII or higher, colour monitor, CD-ROM drive, 8Mb free RAM, QuickTime.
For more details contact EuroTalk Limited on 071 371 7711.

FEATURES 88%

Lots to see and do, but could be just the tiniest bit slicker.

EASE OF USE 90%

I'm sure my three-year old could use it – except for the 50ft exclusion zone around my Mac.

DOCUMENTATION 79%

Makes the back of a bus ticket look verbose. But it's colourful and concise.

VALUE FOR MONEY 75%

Stacks up better than most edutainment software against traditional audio tape/book packages.

MACFORMAT RATING 86%

Future Publishing

DREDD JUDGED

HAS HOLLYWOOD RUINED JUDGE DREDD?

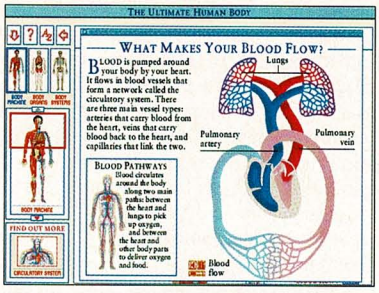
FIND OUT IN ISSUE 2 OF SFX, THE SCIENCE FICTION MAGAZINE

ON SALE 27 JUNE

Films, TV, Books, Comics, Video, Models and more...

Ultimate Human Body

If you're curious about the workings of your body, this CD-ROM could help find the answers you're seeking. But has it lost something of itself in the process?


THE ULTIMATE HUMAN BODY
WHAT MAKES YOUR BLOOD FLOW?
BLOOD is pumped around your body by your heart. It flows in blood vessels that form a network called the circulatory system. There are three main vessel types: arteries that carry blood from the heart, veins that carry blood back to the heart, and capillaries that link the two.
BLOOD PATHWAYS
Blood circulates around the body along two main paths: between the heart and lungs to pick up oxygen, and between the heart and other body parts to deliver oxygen and food.
Lungs
Pulmonary artery
Pulmonary vein
Blood flow
FIND OUT MORE

You'll understand exactly how the organs in your body function with clearly presented animation.

It begins with a heartbeat – a calm pulse that sounds as the introduction to this CD-ROM textbook. *The Ultimate Human Body* takes you on a guided tour of the bewildering variety of bits and pieces that enable us to function.

The disc contains hundreds of short panels on the components of the human body. Each one is either a brief text explanation or a more detailed look at a particular aspect of the body. You can even click on a symbol by many of the terms used in the text to hear how it should be pronounced.

Experience *The Ultimate Human Body* on this month's CD-ROM

The more detailed panels present you with clearly labelled diagrams or narrated animation. You can look at various body cells as seen through a microscope, and how they work is put in context and explained. You even get to solve optical illusions in the section on eyesight.

Excellent as the material is, it already exists as a book – and the animation would work equally well on video. What makes the CD-ROM different from these formats is that you can control the order in which you see the material.

The broad outline of the program is defined with a set of controls on the left of the screen. The parts of the body are grouped into different systems, like the nervous system or the muscle groups. You can wander between each of these to see the body in its different ways. By moving up and down the main body image, you're given options on which feature to find out about with labels that you can click on.

One basic principle remains constant throughout. If a word or symbol is coloured red, you can click on it to see something else (in a similar way to the links in the Internet's World Wide Web area). This device is used to present concise definitions of medical terms, play animation or whisk you away to a different section of the disc.

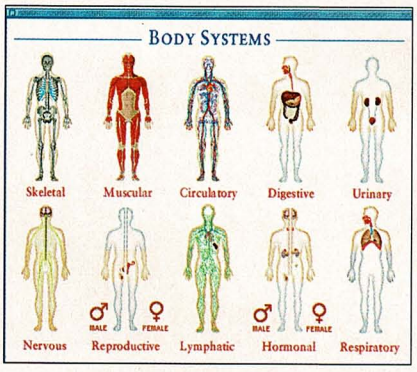
The level of cross-referencing makes it really easy to find your way around – you're never short of options. This means you can explore the material in any way you wish. But only occasionally do you get an insight on the material because of the way it's presented. For example, there's a box where you can compare the heartbeat of the same body when it's walking sedately or in a hurry. It's a way of seeing how the heart works that you can only get with CD-ROM.

The standard of material in *The Ultimate Human Body* is excellent, and it's presented in a precise manner. The program has an authority that means you'll trust every word you read or hear. But something is missing – perhaps you could describe it as a sense of wonder, a delight in the discoveries you're making. Despite all the marvels you'll see – the complexity of a single cell, the essential simplicity of the way the heart works – the program somehow neglects one of the attributes that make us human.

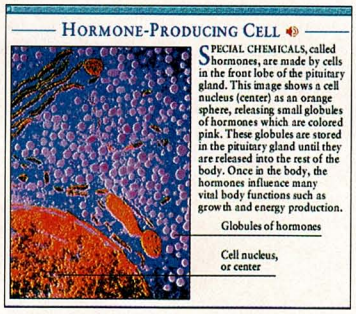
RICHARD HILL

DK CD-ROMs

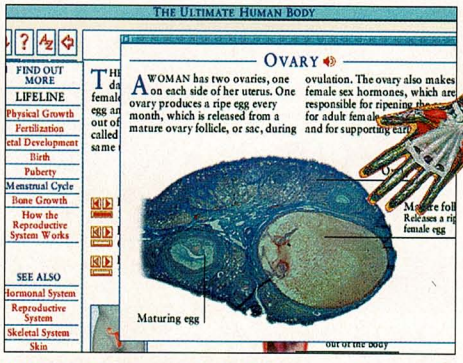
Dorling Kindersley are busy releasing more CD-ROMs for the Mac. *The Way Things Work* was rated 88% in MACFORMAT 23. Look out for reviews of *Stowaway!* and *My First Amazing, Incredible Dictionary* soon.



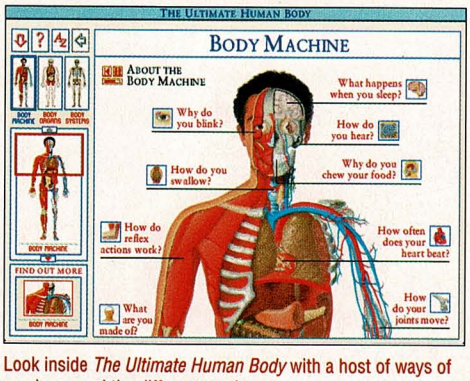
The body is divided into many types of system – take a look at how each one works in minute detail.


HORMONE-PRODUCING CELL
SPECIAL CHEMICALS, called hormones, are made by cells in the front lobe of the pituitary gland. This image shows a cell nucleus (center) as an orange sphere, releasing small globules of hormones which are colored pink. These globules are stored in the pituitary gland until they are released into the rest of the body. Once in the body, the hormones influence many vital body functions such as growth and energy production.
Globules of hormones
Cell nucleus, or center

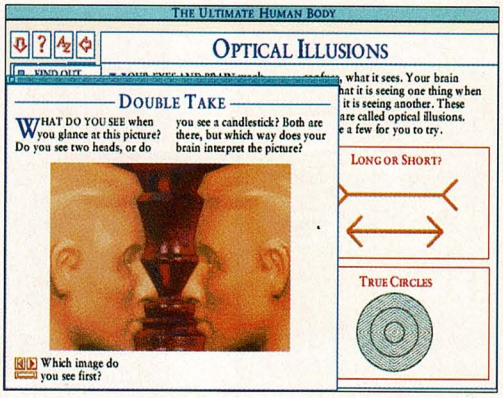
You'd hardly believe that these tiny things could be responsible for so much human misery – those pesky hormones...


THE ULTIMATE HUMAN BODY
FIND OUT MORE
LIFELINE
Physical Growth
Fertilization
Birth
Puberty
Menstrual Cycle
Bone Growth
How the Reproductive System Works
SEE ALSO
Hormonal System
Reproductive System
Skeletal System
Skin
OVARY
A WOMAN has two ovaries, one on each side of her uterus. One ovary produces a ripe egg every month, which is released from a mature ovary follicle, or sac, during ovulation. The ovary also makes female sex hormones, which are responsible for ripening the for adult female and for supporting early
Maturing egg

Writing an essay on reproduction? You can paste any panel into a word processor document, or print it out.


THE ULTIMATE HUMAN BODY
BODY MACHINE
ABOUT THE BODY MACHINE
What happens when you sleep?
Why do you blink?
How do you hear?
How do you swallow?
Why do you chew your food?
How do reflex actions work?
How often does your heart beat?
What are you made of?
How do your joints move?
FIND OUT MORE

Look inside *The Ultimate Human Body* with a host of ways of moving round the different sections.


THE ULTIMATE HUMAN BODY
OPTICAL ILLUSIONS
DOUBLE TAKE
WHAT DO YOU SEE when you glance at this picture? Do you see two heads, or do you see a candlestick? Both are there, but which way does your brain interpret the picture?
LONG OR SHORT?
TRUE CIRCLES
Which image do you see first?

Which shape do you see first? Optical illusions only fool us because of the way our eyes work – find out why here.

THE ULTIMATE HUMAN BODY

Price: £59.00. Out: now.
Requires: any colour Mac with System 7 or later and a CD drive. 4Mb of free RAM.
For more details contact Dorling Kindersley on 0171 836 5411.

MACFORMAT RATING 77%

ADAM: the inside story

Adam is a star with a difference, as you literally get under his skin and see what makes him tick, in a CD that educates and tickles your ribs at the same time.

Now here's a CD-ROM that takes what you might call a more 'humerus' approach to the human body. *ADAM: The Inside Story* doesn't only concern itself with what makes the body function, but also with what it means to us in our everyday lives.

You're greeted by a full frontal view of a male body (If you're easily shocked, you can opt for a view with an appropriately placed fig leaf when you install the program). Out of this unassuming-looking screen comes the most ingenious part of the program.

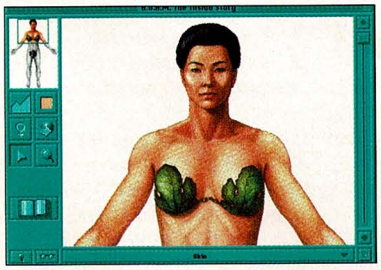
Using the controls provided, you can explore the inside and outside of the body at your leisure. You can make it male or female or any one of four races – reflecting the wonderful variety of the human form. And then, using a single slider control, you can delve down into the body, peeling away the layers of skin, fat, muscle and organs until you can see the marrow inside the skeleton itself. This simple, imaginative device beautifully conveys the complexity of your body's construction.

Look into *ADAM* yourself with the rolling demo on the CD-ROM

As you explore the innards, you can click on a body part to reveal its label, which you can also use as a link to the most relevant section of the scrapbook – the other major section of *The Inside Story*. Each chapter looks at one of the various systems our bodies use – digestive, reproductive and so on.

The scrapbook's all about the title character and his wife, Eve, and is full of diagrams and illustrations about their bodies. These are interspersed with memorabilia of their lives, which wittily shed light on how their lives have been affected by the development of their bodies. For example, you can see a photo of Adam as a teenager, at the height of puberty – and it's clearly written all over his face. There's also a fondly-remembered scrap from his little black book of potential dates as the hormones clearly took control of body and mind.

Excellent narration weaves clear, basic explanations in with homespun jokes, and there are plenty of video snapshots – pictures you can click on to get animations of how the body systems work. And a doctor is on hand in video form to give a medical perspective – matters like HIV and AIDS in the immune system chapter, for example. But this is by far the least convincing and amateurish part of the disc, and confuses you rather than making things clearer.



You can use the main controls to alter this body's sex, skin colour, from behind or even inside-out.

Despite all the pleasant touches and overall clarity, the scrapbook is basically a video you sit and watch, not something for you to play with. It's disappointing that it doesn't live up to the standard set by the peel-away bodies – or the assortment of simple games (you'll need to register to be able to use these puzzles, but you only need to make a quick phone call).

But you'll empathise with the couple's gleeful delight in exposing each other's foibles – like the moles Eve doesn't want you to see, or Adam's reaction to the news of Eve's pregnancy. After all, humour is a healthy way of acknowledging the embarrassment we often feel about our clumsy, farting, wonderful bodies.

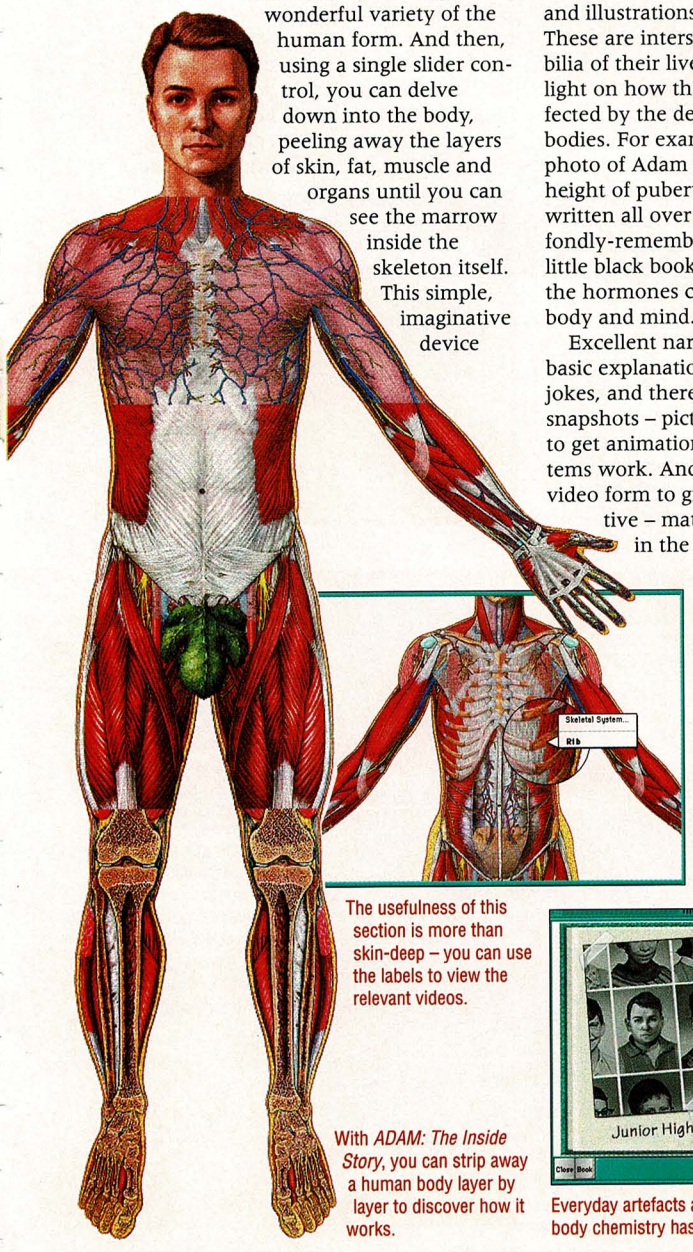
RICHARD HILL

MEDIA MEDICS

Multimedia is also being used to teach the facts about the human body and medicine to professionals. See MacroScope on page 28 for more details.

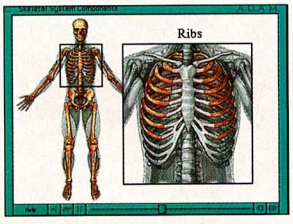
FUNNY BONE

The humerus is the bone in the upper half of your arm.

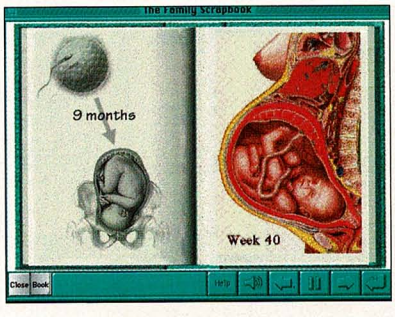


With *ADAM: The Inside Story*, you can strip away a human body layer by layer to discover how it works.

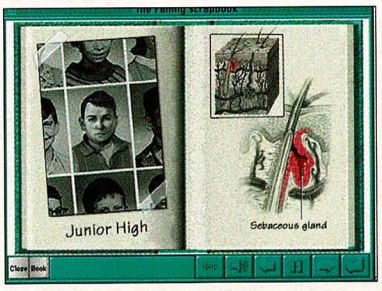
The usefulness of this section is more than skin-deep – you can use the labels to view the relevant videos.



The plentiful animation is clear and wittily-narrated – but there's little you can do apart from watching it.



All types of illustration, video and diagrams are mixed into the scrapbook to tell the story of us.



Everyday artefacts are used to show the effect our body chemistry has on us – I'd rather not know!

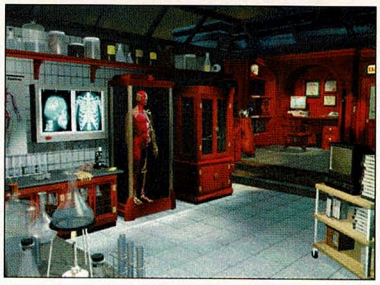
ADAM: THE INSIDE STORY

Price: £40. Out: this month.
Requires: LCII or better with System 7, 8Mb of RAM, a 256-colour monitor and a double-speed CD-ROM drive.
For more details contact Churchill Livingstone on 0131 535 1751.

MACFORMAT RATING 74%

How Your Body Works

What's in a body? Well, there are organs, blood, bones and lots of lumpy things which don't look nice and aren't edible. Need to know more? Then read on!



Welcome to the medical library. When you roll your mouse pointer around the screen signs pop up telling you what everything is. Those X-rays, for instance, take you off to the anatomy section.

Warning: this review is not a substitute for medical care or treatment. Always consult a physician before attempting any actions advised herein.

Isn't it annoying when all the authority a multimedia disc might have had is instantly undermined by a disclaimer the minute you load it up? And isn't it doubly annoying when the same disclaimer pops up again two or three times each time you use your new CD-ROM?

It's a shame that the US legal system is in such a poorly way that even the makers of CD-ROMs have to cover their backs, because the quality of the information in *How Your Body Works* is the best thing about it. There's loads of stuff in there on all kinds of help related issues, all dressed up with some fancy interface features. Unfortunately, it's not all very well linked up, so using the disc is a bit of a slow, methodical plod rather than the info-surfing experience you get with something like Dorling Kindersly's *Ultimate Human Body* (reviewed page 104).

One of the most interesting areas of the disc is the Body Tours section where you get to watch 3D animations of various parts of your innards. You can, for instance, see what a gland looks like under your skin, watch blood cells circulating or see some food getting digested. The narrator, meanwhile, gives you the inside track on what's going on.

Still, the section's not stunningly good. The animations are only a quarter screen size and each of the12 lasts about two minutes.

Fortunately, there's a great deal more. In the medicine cabinet you can find out about prescription and over the counter drugs, and how they work. For pain and inflammation, you can take a narcotic such as codeine or morphine which will depress pain perception in the brain. If you have an ulcer, however, pepcid will help neutralise stomach acid. (Hey – remember that disclaimer.)

Elsewhere, there's a video section where experts in 12 fields give their advice talking-head style via a monitor. The natty interface whereby you select tapes for the video machine works well, but some of the advice is common sense stuff, like 'wear a wide brimmed hat in sunny weather'.

If you need to brush up on your First Aid, medical terminologies or your understanding of how the 12 main bodily systems work, there's lots and lots of text reference stuff to see. The First Aid Handbook, Medical Dictionary and Related Concepts sections are all presented just like books and you can page your way through the articles they hold. Surprisingly, however, there's no hypertext or linking of the text in any way between different sections. What's more, the text on things like the circulation system, digestion or the nervous system isn't even linked up to the 3D animations on these topics.

It's a real shame the information in *How Your Body Works* is dispersed rather than cross referenced or interlinked, because there's mountains of stuff in here. It would be a good title for kids too, if you could keep them interested long enough to get anything out of it.

GARRICK WEBSTER

SYSTEMS

The 12 bodily systems illustrated with 3D animations in *HYBW* include digestion, respiration, reproduction, infection fighters, hearing and balance, thought and action, seeing, smelling and tasting, circulation, hormones, hair and skin, and locomotion.

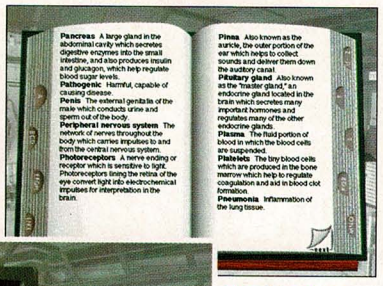
NICE TOUCHES

There are one or two fun items thrown in too. On one shelf you see an eye. Click it and you find it's a Kal-Eye-Dascope. And that's exactly what it is, your own on-screen kaleidoscope. Also, if you click the iodine bottle in the first aid kit, a voice says: 'Now this won't hurt a bit.' Yeah, right.

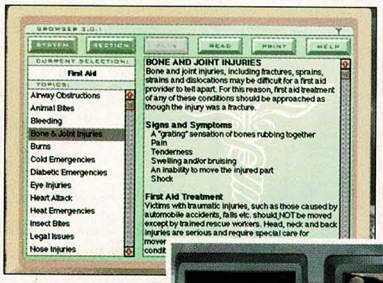
HOW YOUR BODY WORKS

Price: £40. Out: now.
Requires: LCIII or better, 8Mb RAM, minimum 4Mb hard disk space, System 7.1 or later, 13-inch colour monitor.
For more details contact Mindscape on 01444 246333.

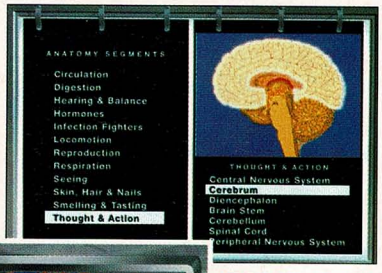
MACFORMAT RATING 72%


Pancreas A large gland in the abdominal cavity which secretes digestive enzymes into the small intestine, and also produces insulin and glucagon, which help regulate blood sugar levels.
Pathogenic Harmful, capable of causing disease.
Penis The external genitalia of the male which conducts urine and sperm out of the body.
Peripheral nervous system The network of nerves throughout the body which carries impulses to and from the central nervous system.
Photoreceptors A nerve ending or receptor which is sensitive to light. Photoreceptors bring the retina of the eye convert light into electrochemical impulses for interpretation in the brain.
Pinna Also known as the auricle, the outer portion of the ear which helps to collect sounds and deliver them down the auditory canal.
Pituitary gland Also known as the "master gland," an endocrine gland located in the brain which secretes many important hormones and regulates many of the other endocrine glands.
Plasma The fluid portion of blood in which the blood cells are suspended.
Platelets The tiny blood cells which are produced in the bone marrow which help to regulate coagulation and aid in blood clot formation.
Pneumonia Inflammation of the lung tissue.

Everything from abdomen to white blood cells is in the medical dictionary. Unfortunately it's not hyperlinked to all the other text sections of the disc.

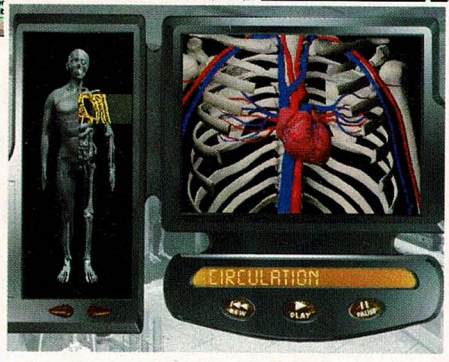

BROWSER 3.0.1
SYSTEM
SECTION
READ
PRINT
HELP
CURRENT SELECTION:
First Aid
TOPICS:
Airway Obstructions
Animal Bites
Bleeding
Bone & Joint Injuries
Burns
Cold Emergencies
Diabetic Emergencies
Eye Injuries
Heart Attack
Heat Emergencies
Insect Bites
Legal Issues
Nose Injuries
BONE AND JOINT INJURIES
Bone and joint injuries, including fractures, sprains, strains and dislocations may be difficult for a first aid provider to tell apart. For this reason, first aid treatment of any of these conditions should be approached as though the injury was a fracture.
Signs and Symptoms
A "grating" sensation of bones rubbing together
Pain
Tenderness
Swelling and/or bruising
An inability to move the injured part
Shock
First Aid Treatment
Victims with traumatic injuries, such as those caused by automobile accidents, falls etc. should NOT be moved except by trained rescue workers. Head, neck and back injuries are serious and require special care for

The only thing that seems to bring all the info together to a common interface is the Browser. It's a bit like a search database, but not as versatile.

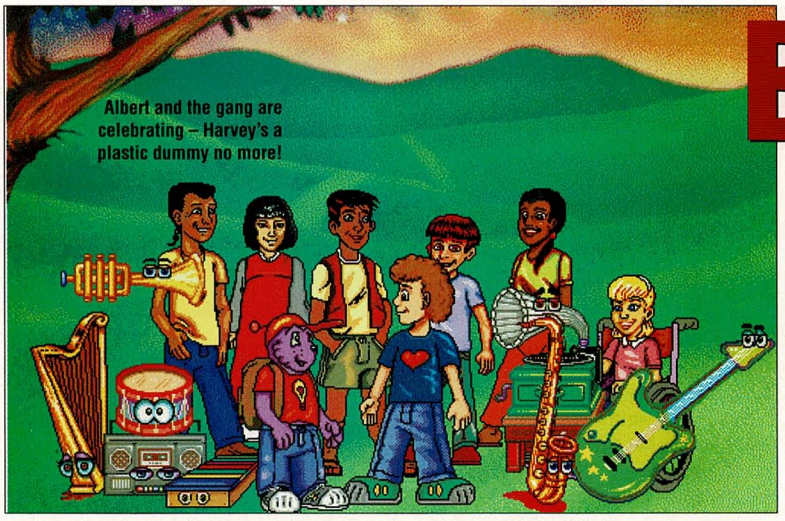


In Anatomy you can see 2D diagrams and illustrations of around 50 different body parts. Here's a glowing brain – too many trips to the medicine cabinet, I expect.

Shove a cassette in the video machine and you can hear experts giving all sorts of friendly advice. This lady is telling us how to perform a DIY hearing test. Asphinctersayswhat? Exactly.



One of the better 3D animations features the circulation system. Half this guy's veins are blue, so he must be half related to the Queen or something.



Body Park

Forget gruesomely realistic pictures of people's innards and take an innocent stroll with a bear around a cartoon theme park of the bodily functions.

If Albert annoys you, then your enjoyment of this CD-ROM is doomed: he accompanies you throughout your explorations of this body theme park, tirelessly narrating in his Muppet-style voice. I thought Albert would annoy me senseless, but I got quite used to him after a while.

There are eight sections you can visit: the brain; the mouth; the skeleton; the muscles; the heart and blood; the lungs; nutrition and the family tree. Each are represented by some kind of building and surrounded by objects or figures that you can animate when you click on them. You can get to different 'attractions' by clicking on the signposts you encounter, or you can click on a gizmo on Albert's belt to access a body-shaped map of the park.

Each section follows exactly the same format. You click on the doors of the building, whether it's a haunted house for the skeleton, or a clown's head for the mouth and teeth, to get inside. There are three more doors within, each representing different activities: Experiment, Discovery and Game. The experiment's something simple your kids can do. So for nutrition, Albert invites you to put different food types on bits of brown paper to show how much fat each contains, and for the heart and blood, he suggests you examine your tongue as an easy way of taking a look at your blood vessels. Albert's friends demonstrate. The Discovery section covers things like what your teeth are made of, or how your heart pumps blood around your body. It's all quite basic information, simply explained and illustrated with pictures (featuring Albert's friends) that you click on to animate. Albert narrates everything, but you can read it for yourself with the on-screen book.

The third door takes you to an easy but entertaining game – ideal for younger children. There is a point to these games: as each represents an aspect of the body, a sub-plot has been worked in where the evil Frankenslime (who looks uncannily like Albert Einstein) has turned poor Harvey into a plastic dummy. For each game you win, you return that body part to the plastic dummy. Win all the games, and Harvey will be human again. If you don't complete the games first time, you can try them over and over. And you don't have to complete this un demanding challenge in one sitting – register your name when you first enter the park, and you can return to the point where you last left off next time you load the CD.

Despite the requirements stated by the publishers, Virtual Entertainment, I couldn't finish any of the games on a Mac IIci in the two minutes time limit set – the Mac was simply too slow. On a PowerMac I finished the games in just one minute or less.

Body Park is not particularly educational – it's simplistic, has quite a lot of charm thanks to some great quirky animations (click on everything, you never know what might happen) and should keep your children amused for a while, anyway. Apart from the animation, children beyond the age of eight probably wouldn't find it very interesting, but it's good for getting younger children interested in biology. And you're safe if you don't want your six year old asking awkward questions about sex: the most risqué *Body Park* gets is calling 'what you sit on' your 'gluteous maximus'. It's good clean fun – innocuous, yet appealing, and not a gory bit in sight. **Eva Lauer**

Body Park

Price: £39.99. Out: now.
Requires: Mac II, Quadra, LC, Performa series or better, 12-inch colour monitor, System 7 or later, 4Mb RAM, 6Mb hard disk space, CD-ROM drive.
For more details contact TecMagik on 0171 486 3202.

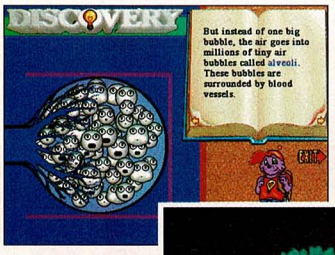
MACFORMAT RATING 70%

Fun Facts

Every section in *Body Park* has a fun fact. Did you know that the bones in a bat's wings are like those of a human hand? Or that you can sneeze at over 100mph? Or that the biggest ever family consisted of 69 children by the same mother?

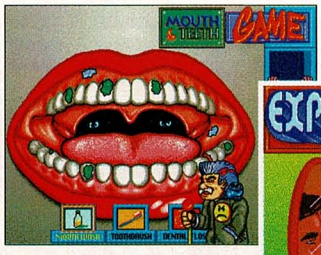
Experiment

If you close your eyes and try to put your finger tips together, your finger tips touch because your brain tells you where they are. This caused a little concern in the MACFORMAT office – but we've been brain-dead for years.


DISCOVERY
But instead of one big bubble, the air goes into millions of tiny air bubbles called alveoli. These bubbles are surrounded by blood vessels.
EXIT

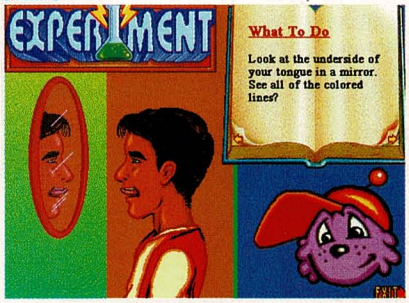
This is an artistic representation of the alveoli – you haven't really got little creatures in your lungs (I hope).

Click on the first aid kit and you get some wholesome advice like this. Kids, just say no.



A perversely pleasing game: beat the dragonbreath and you win back Harvey's mouth. Lose, and Frankenslime has a good gloat.

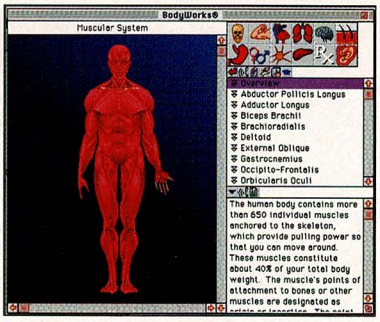
Get each bird on the right perch – it's easy, childish, amusing and curiously satisfying.



Apparently, this is a way of examining your blood vessels. Well, whatever he's doing, just hope the wind doesn't change. Oh, and in case you hadn't realised, the guy in the silly hat is Albert.

BodyWorks 3.0

A bag of bones? The body is a miracle of nature. *BodyWorks* 3.0 is one of the few multimedia programs to survive on floppy disk... A miracle? Perhaps.


BodyWorks®
Muscular System
Abductor Pollicis Longus
Adductor Longus
Biceps Brachii
Brachioradialis
Deltoid
External Oblique
Gastrocnemius
Occipito-Frontalis
Orbicularis Oculi
The human body contains more than 650 individual muscles anchored to the skeleton, which provide pulling power so that you can move around. These muscles constitute about 40% of your total body weight. The muscle's points of attachment to bones or other muscles are designated as

Peel away the skin and this is pretty much what you'd see. Meat to some, the muscles are attached to bones via sinewy ligaments and enable us to move our skeletal frames around quite well.

There's something strange about computer generated voices. Although they can sometimes sound very realistic, even the best of them have an eerie lifelessness. They're certainly no substitute for the real thing.

This hasn't bothered the makers of *BodyWorks 3.0*, though. Instead of getting a narrator and putting the program on CD-ROM, they've bundled a Mac voice generator to read the text files in the program. Unfortunately all but one of the eight different voices provided sound too weird to listen to.

Naturally, however, you can't really expect too much in the way of multimedia features from a program that comes, albeit compressed, on four floppy disks. *BodyWorks 3.0* is plain and utilitarian compared to flashy jobs like Dorling Kinderley's *Ultimate Human Body* and *How Your Body Works*. It's really not much more than an archive of anatomical illustrations and text on the human body.

It all works through the main, unchanging, interface screen. On the left hand side you have a diagram of the body or one of its constituent organs. A series of buttons across the top of the interface enable you to change quickly between different bodily systems. Generally, you start off with a full body diagram indicating where different organs in a specific system are located. If you click the entries on the menu bar, pointer lines appear on the diagram indicating where that organ is in the body. Meanwhile, text describing the function of the organ appears in a scrolling text field to the bottom right.

The way this menu-driven system works makes it quite easy to follow your own chosen line of enquiry. For instance, if you start with the nervous system, you get a picture illustrating the main nerves in the body. Double click **cerebellum** in the menu, however, and you get a cross section of the brain, text, plus a menu of 20 or so related organs. If you double click **frontal sinus,** about 20 more possible next stops appear, and if you select **middle nasal concha** you enter the skeletal system section of the program. If choosing your own route doesn't suit you, 14 tutorials are on offer, leading you through the construction of body parts like arm, leg and head.

There are literally hundreds and hundreds of diagrams in the program and the text is highly complex and detailed. *BodyWorks 3.0* would probably benefit any budding A-level student or medicine undergraduate who doesn't have a CD-ROM drive, but younger people would definitely find it quite dull. It's a real pity there isn't a flashy CD-ROM version with proper voices and slicker features because ultimately it will feel quite unapproachable to the general user.

GARRICK WEBSTER

BODILY SYSTEMS

BodyWorks 3.0 covers the skeletal, Muscular, Cardiovascular, Respiratory, Nervous, Sensory, Digestive, Genitourinary, lymphatic and endocrine systems. However, it also has a section on Health and Fitness and one called Life, which concerns birthrates, reproduction and so on.

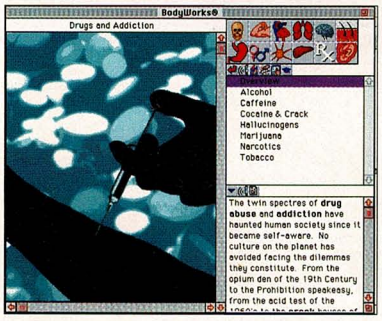
TEXT HANDLING

Although it lacks flashy features, *BodyWorks* is great if you need to export text or do searches. It can even do phonetic searches if you don't know how to spell the name of the body part you're looking for. Many main terms constitute hyperlinks between text entries.

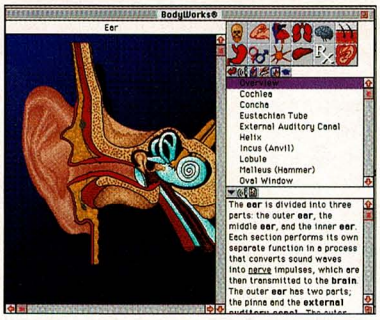
BODYWORKS

Price: £49.95. Out: now
Requires: LCII or better, System 6.0.7 or better, 4Mb RAM, 256-colour monitor.
For more details contact Guildsoft on 01752 895100.

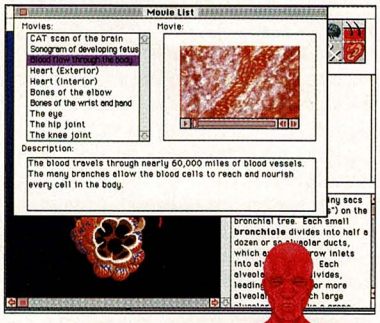
MACFORMAT RATING 62%


BodyWorks®
Drugs and Addiction
Alcohol
Caffeine
Cocaine & Crack
Hallucinogens
Marijuana
Narcotics
Tobacco
The twin spectres of drug abuse and addiction have haunted human society since it became self-aware. No culture on the planet has avoided facing the dilemmas they constitute. From the opium den of the 19th Century to the Prohibition speakeasy, from the acid test of the

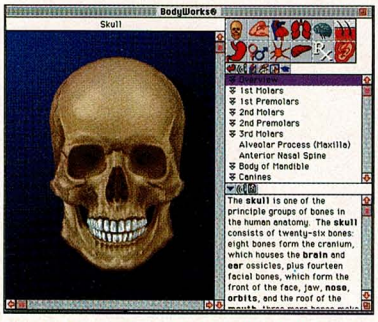
In the Health & Fitness section you'll find all sorts of interesting stuff on topics like eating, exercise, sports injuries and drugs.


BodyWorks®
Ear
Overview
Cochlea
Concha
Eustachian Tube
External Auditory Canal
Helix
Incus (Anvil)
Lobule
Malleus (Hammer)
Oval Window
The ear is divided into three parts: the outer ear, the middle ear, and the inner ear. Each section performs its own separate function in a process that converts sound waves into nerve impulses, which are then transmitted to the brain. The outer ear has two parts; the pinna and the external

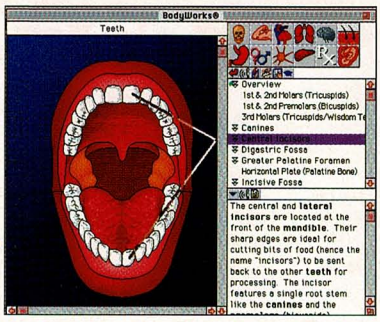
You can find out the names of all of the parts of the ear both inside and outside the head from this diagram.


Movie List
Movies:
CAT scan of the brain
Sonogram of developing fetus
Heart (Exterior)
Heart (Interior)
Bones of the elbow
Bones of the wrist and hand
The eye
The hip joint
The knee joint
Movie:
Description:
The blood travels through nearly 60,000 miles of blood vessels. The many branches allow the blood cells to reach and nourish every cell in the body.
bronchial tree. Each small bronchiole divides into half a dozen or so alveolar ducts, which

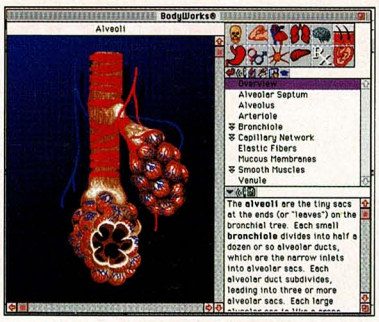
There are ten movies in the program but they're short and a little jumpy.


BodyWorks®
Skull
1st Molars
1st Premolars
2nd Molars
2nd Premolars
3rd Molars
Alveolar Process (Maxilla)
Anterior Nasal Spine
Body of Mandible
Canines
The skull is one of the principle groups of bones in the human anatomy. The skull consists of twenty-six bones: eight bones form the cranium, which houses the brain and ear ossicles, plus fourteen facial bones, which form the front of the face, jaw, nose, orbits, and the roof of the

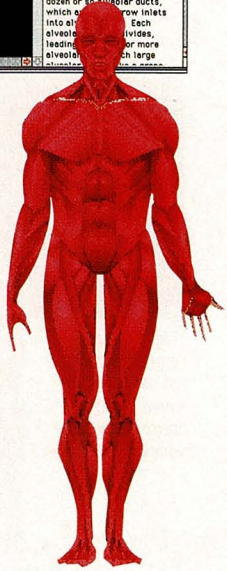
The skull's a pretty good thing, all said. It does its best to keep our brains inside our heads but also lets us speak, hear and look around too.


BodyWorks®
Teeth
Overview
1st & 2nd Molars (Tricuspids)
1st & 2nd Premolars (Bicuspids)
3rd Molars (Tricuspids/Wisdom Te
Canines
Digestive Fosse
Greater Palatine Foramen
Horizontal Plate (Palatine Bone)
Incisive Fosse
The central and lateral incisors are located at the front of the mandible. Their sharp edges are ideal for cutting bits of food (hence the name "incisors") to be sent back to the other teeth for processing. The incisor features a single root stem like the canines and the

If you're looking at the picture of the skull and double click on the word **molars** in the **skull** menu you get a detailed illustration of big mouth.

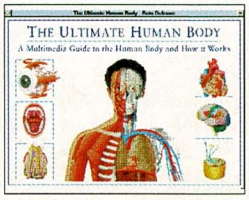

BodyWorks®
Alveoli
Alveolar Septum
Alveolus
Arteriole
Bronchiole
Capillary Network
Elastic Fibers
Mucous Membranes
Smooth Muscles
Venule
The alveoli are the tiny sacs at the ends (or "leaves") on the bronchial tree. Each small bronchiole divides into half a dozen or so alveolar ducts, which are the narrow inlets into alveolar sacs. Each alveolar duct subdivides, leading into three or more alveolar sacs. Each large

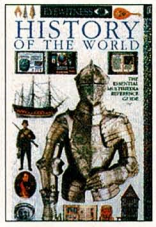
The level of detail to which *BodyWorks* goes inside some organs is quite impressive. These are the tiny bronchioles in your lungs.

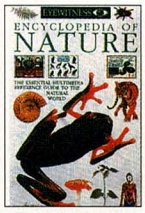


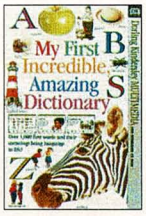
Would you like to make a substantial personal profit out of ➡

Dorling Kindersley's fantastic new CD-ROMs?









DKFL offers you the chance to turn your enthusiasm into money, now.

If you are over 18, can spare a few hours every week and are willing to invest £50, you could qualify to be an Independent Distributor of these amazing products, plus DK's award winning range of books, videos and games.

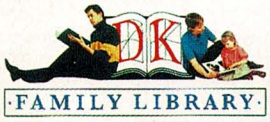
Dorling Kindersley CD–ROMS, books, videos and games

Learning for life

DKFL — A Network you will be proud of...

For Free Information

Call: 0181—977 8954



Independent Distributor

Future PUBLISHING

Wanted: CD-ROM Editor

MACFORMAT, Britain's best-selling Macintosh magazine, is looking to expand and develop its cover-mounted CD-ROM. We are therefore seeking a full-time CD-ROM Editor to take over its creation.

The CD-ROM Editor will be responsible for sourcing the range of software for the CD, including demos of programs reviewed in the magazine, shareware and multimedia, then compiling the CD and floppy disk for each issue. You will also be writing associated sections of the magazine, including the disk pages, shareware reviews and some other material as appropriate.

The main requirements for the post are a good all-round knowledge of the Macintosh and tons of initiative. Because the job involves writing, you will also need to demonstrate the ability to write literate, accurate and entertaining copy. It would be an advantage if you have some artistic talent and/or experience of multimedia authoring or programming (samples of any work you've done would be welcome). Full training and guidance will be given. Salary will be dependent on age and experience.

The person we are seeking will be expected to bring to the post many new and exciting ideas for developing the content, quality and appeal of the CD-ROM. As part of your application, therefore, please include 500 words detailing what you think of the CD as it currently is, and how you would like to change it for the better.

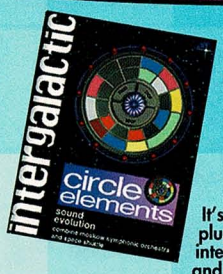
Apply with full CV and examples of your work to Nichole Hunt at the address below:

30 Monmouth Street • Bath • Avon • BA1 2BW

The Multimedia Sound Specialists

For 5 years, the world's top record producers, recording musicians and home studio enthusiasts have relied on Time+Space for their sounds (and therefore much of their inspiration). Now we offer you, the PC/Mac/soundcard user, that same incredible creative resource. We distribute *only the highest quality* sound sampling collections from the world's best developers, and offer plenty of helpful advice.

MINDBLOWING INTERACTIVE MUSIC COMPOSITION



Circle Elements™

The INTERACTIVE sample-based music composing package that everyone's talking about. Includes over 2000 sounds!

"If you own a soundcard, you MUST get Circle Elements"

(Personal Computer World)

It's a whole new FAST creative playground in sound! A plug'n'play world of sounds and rhythms. Have a quick go on the interactive Circle CD-ROM and you'll be amazed at what you see and hear. Combine natural sound effects with funky rhythm loops with the Moscow Symphonic Orchestra! *No matter what your standard of musicianship, you can create hit records - ready to release - straight from the audio output of your multimedia PC/Mac, with no additional equipment required!*

A totally fascinating concept:

Each "CIRCLE ELEMENTS" CD-ROM disc contains 1000 internationally flavoured natural, synthetic or instrument sounds & rhythms, specially sampled and pre-looped. We call these "Elements". Just load, for example, some riffs, licks, chords and rhythmic loops, then place some of these elements inside the circle (the uniquely-designed work screen) and press play. You'll be amazed. *The sounds always fit together.* Build new sound collages of any duration, from just a few seconds to several minutes length. And *no musical knowledge is required* to use the unique "CIRCLE ELEMENTS" work screen - you just need common sense and a good ear for what sounds good!

TRY THE DEMO & READ THE REVIEWS IN 'CD-ROM TODAY' & 'MAC FORMAT' (SEPT. ISSUES)

Creative energizer! You'll find that *your mind opens naturally* to new musical ideas. Combine, stretch and stack sounds in many different ways - even stack complete 'Circle's!! All sounds are laid out in 8 or 16 bit, & you can also import your own sound material. It feels like a game - but it's actually a new and amazingly powerful way to create music *WITH SAMPLES* - a revolution in the way music can be constructed. No synth or soundcard can match these interactive fireworks in rhythmical, atmospheric and musical sounds. Now you can create tracks easily & quickly and have loads of fun along the way - and that really is the best recipe for making successful music - thanks to "CIRCLE ELEMENTS".

There are 2 Circle Elements CD-ROM titles available so far. Each includes the software, plus:
Circle Vol 1: "Intergalactic" includes over 1000 dance and electronic samples, and **Circle Vol 2: "Planet Earth"** includes over 1000 natural sound effects and musical instrument sounds, etc. **Only £29.95 each** including VAT,
Or get **BOTH titles for only £49.95** including VAT (save £10.00)
(To use Circle Elements you need either: a PC 386 computer or better & 4Mb RAM or better & Windows 3.1 & Soundcard 8/16-Bit & CD-ROM drive; or: MAC computer with 68020 Processor or better, & 4Mb RAM or better & CD-ROM drive).

PC '.WAV' FILE SOUND CD-ROMs

We have 100's of Audio CDs & PC '.WAV' CD-ROMs containing 1000's of sounds for use in your music & multimedia productions. Here's just one example... **ZERO-G DATAFILES Volumes 1, 2 & 3.** The world's best-selling sample collection ever. Over 3250 killer sound samples covering almost every known category of sound. This collection has inspired many chart hits. Now available as either **3 CD-ROMs in PC WAV file format (compatible with Circle Elements on PC!): £19.95 each, or 3 standard Audio CDs: £19.95 each.** (or as one 500-megabyte Akai S1000 format CD-ROM: £99.00)

INTERACTIVE CD-ROMs

Of course the BIG NEWS on the interactive music front is the CIRCLE ELEMENTS CD-ROMs from Germany, but we also carry a range of the world's very best interactive entertainment & education titles: Here are a few examples (prices include VAT):

MUSIC

Peter Gabriel: Xplora 1.	£19.95 (Mac)
Prince Interactive.	£19.95 (Mac/PC)
David Bowie: Jump.	£17.95 (Mac)
Beethoven's 5th.	£19.95 (PC)
The Viking Opera Guide.	£24.95 (PC)
Hard Day's Night.	£19.95 (Mac)
The Orchestra.	£17.95 (Mac)
Multimedia Strauss	£19.95 (Mac/PC)
Beethoven: 9th Symphony	£19.95 (Mac/PC)
Mozart: Dissonant Quartet	£19.95 (Mac/PC)
Stravinsky: Rite of Spring	£19.95 (Mac/PC)
World Beat	£19.95 (PC)

LEARNING

Ancient Lands	£24.95 (PC)
Art Gallery	£24.95 (Mac/PC)
The Way Things Work	£29.95 (PC)
Interactive Space Encyclopaedia	£19.95 (PC)
How Computers Work	£14.95 (Mac)
Dangerous Creatures	£24.95 (PC)
Dinosaurs	£19.95 (Mac/PC)
Encarta'95 Encyclopaedia	£49.95 (PC)
Musical Instruments	£24.95 (Mac/PC)
Macbeth	£19.95 (Mac)
Small Blue Planet	£24.95 (Mac/PC)
Learn to Speak French	£44.95 (Mac/PC)
Learn to Speak Spanish	£44.95 (Mac/PC)

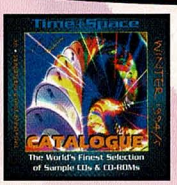
ENTERTAINMENT

Myst	£19.95 (Mac/PC)
Residents Freak Show	£24.95 (Mac/PC)
Return to Zork	£19.95 (Mac)
7th Guest	£19.95 (Mac/PC)
Theme Park	£19.95 (Mac)

FOR CHILDREN

Just Grandma & Me	£19.95 (Mac)
Peter Pan	£17.95 (Mac/PC)
Ruff's Bone	£19.95 (Mac/PC)
Tortoise & The Hare	£19.95 (Mac/PC)
Arthur's Teacher Trouble	£19.95 (Mac/PC)
Little Monster at School	£19.95 (Mac/PC)

CALL FOR A FREE CATALOGUE



WE ARE THE EXCLUSIVE UK DISTRIBUTORS FOR 99% OF THE ENTIRE WORLD'S SOUND LIBRARIES ON CDs & CD-ROMs! ASK FOR OUR FREE 92-page CATALOGUE!!

92 COLOUR PAGES 100's of CDs!

FAST MAIL ORDER

FAST mail-order service - delivery usually within 48 hours when you pay by credit card (VISA / MASTERCARD / AMEX), postal orders, bank draft, building soc. cheque, or cash (please send cash by registered post for safety).

TO ORDER: TEL 01566 785400 • FAX 01566 785777

If paying by personal cheque please allow up to 7 working days (!) for clearance. Make cheques/POs payable to "TIME+SPACE" and post to:

TIME+SPACE INTERACTIV • P.O. BOX 2 • LAUNCESTON • PL15 8YZ • UK

Dealer Enquiries Invited

International orders: please add £5 airmail or £10 express airmail. **Prices include VAT & UK Postage, & are subject to change without notice.**

TIME+SPACE INTERACTIV VISA Access AMERICAN EXPRESS

THE WORLD'S LARGEST SELECTION OF PROFESSIONAL SOUND LIBRARIES ON CD & CD-ROM

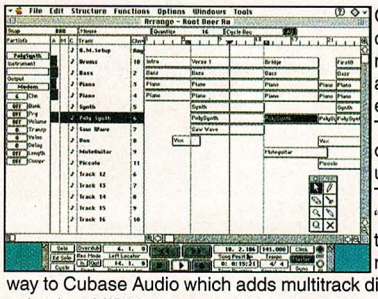
Emerald Creative Technology

Desktop Music

CUBASE

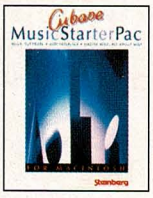
AUTHORIZED DEALER

Steinberg



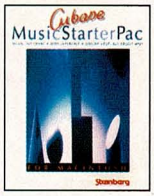
Cubase is Steinberg's open-ended concept designed to embrace today's important technologies and tomorrow's technological advance.Cubase offers a piano roll editor, list editor, custom drum editor, & notation editor. The arrange window takes the guesswork out of song construction. To cut a phrase in two, use the scissors - to join, use the glue tube ! The heart & soul of a song is the feel. With the "Groove Quantize" you create custom rhythm templates that let your music groove ! The range starts with Cubase Lite and goes all the way to Cubase Audio which adds multitrack direct-to-disk recording. All you need to get you going is a MIDI instrument, a MIDI interface like the Micro Mac, and any Mac with System 7 and 4Mb of RAM.

Cubase Lite £86.95
Cubase 2.5 ..... £339.95
Cubase Score £456.95
Cubase Audio £744.95



If you're starting out, then we have just the thing for you - the Cubase Music Starter Pac. Containing Cubase Lite, a Micro Mac MIDI Interface, an online MIDI tutorial and help application, and 10 demo songs to show you just how great Mac'ed up music can sound.

Just £129.95 !



EMAGIC

Micro Logic XL
Contains Micro Logic, the Log 2 Mac MIDI interface and 10 songs, all for just
£124.95

Logic
A great sequencer. Unlimited tracks, full scoring, real-time MIDI mixing and lots more
£294.95

Logic Audio
The audio add-on for Logic. Up to 16 tracks of digital audio, timestrech, re-groove etc.
£249.95

MIDI Interfaces

Micro Mac Midi Interface - 1 in, 1 out £47.95
Log 2 Mac Midi Interface - 1 in, 3 out, printer thru switch, metal case £61.95
Translator II Midi Interface - 1 in, 3 out, printer thru switch £69.95
Translator Pro Midi Interface - 2 in, 6 out, 32 channel £129.95
Translator Pro Sync Midi Interface - 2 in, 6 out, 32 channel, SMPTE £229.95

Peripherals

Modems

USR Mac&Fax 28,800 modem . . .£289.95
Includes terminal & fax software + cables
USR Mac&Fax 14,400 modem . . .£179.95
Includes terminal & fax software + cables
SupraFAXModem 144LC £119.95
14,400 data & fax modem, Microphone LT and FAXcilitate.
SupraFAXModem 288 . . . . . £239.95
v.34 28,800 data & fax modem, Microphone LT and FAXcilitate.

QuickStick
Questick Joystick £59.95
Questick 2 + Game . . .£66.95
Quepad Joypad £39.95

Logitech Mouseman Mouse £51.95
Logitech Trackman Trackball £59.95

CD Rom Drives

The new Power CD Rom Drives, at incredibly low prices ! These high quality, multi session SCSI drives come with audio in and out ports, SCSI cable and terminator, all the necessary software, and are supplied with 12 months warranty.

Quad Speed CD Drive
£268.95
Double Speed £185.95

Reference

Microsoft's Encarta is a multimedia encyclopedia for children and adults alike. Features pictures, sound and video. CD Only
Encarta £79.95

Dorling Kindersley

Cross Section Stowaway CD £38.95
Encyclopaedia of Science CD £74.95
My First Incredible Dictionary CD . . £38.95
The Way Things Work CD £57.95
Ultimate Human Body CD £57.95

Literature

Geoffrey Chaucer CD. £29.95
William Shakespeare CD £29.95
William Wordsworth CD £29.95
Charles Dickens CD. £29.95
Thomas Hardy CD £29.95
Beowolf to Hamlet CD £29.95
Paradise Lost to Ivanhoe CD £29.95
Lyrical Ballads to Silas Mariner CD. £29.95
Great Literature CD £39.95
King James Bible CD £29.95
Macbeth CD. £75.95
Shakespeare Complete Works CD . £21.95

Languages & Education

Pronunciation Tutors - French, German or Spanish CDs £42.95
Learn To Speak Spanish CD £129.95
Learn To Speak French CD £129.95
Think & Talk French CD £116.95
Think & Talk German CD £116.95
Typing Tutor 6. . . . . £29.95

Encyclopedias

Animals of San Diego Zoo CD £29.95
Comptons Encyclopaedia '95 CD . . £64.95
Encarta '95 CD £79.95
Grolier Encyclopaedia '95 CD. £84.95
Encyclopaedia of Con Artists & Confidence Tricks CD. £29.95
Encyc. of JFK Assasination CD . . . £29.95

Space

Distant Suns CD £39.95
Distant Suns Floppy £28.95
Red Shift CD £39.95
Small Blue Planet CD. £39.95
Mars Explorer CD £29.95
Venus Explorer CD. £29.95

Body & Health

Adam's Inside Story CD £39.95
Bodyworks 3 . . . . . £39.95
How Your Body Works DC £36.95
Mayo Clinic CD £29.95
Dr's Book of Home Remedies CD . £29.95
Pill Book CD £34.95

Microsoft

Art Gallery CD £41.95
Bookshelf CD. £74.95
Cinemania '95 CD £41.95
Dangerous Creatures CD. £43.95
Encarta 95 CD In Stock Now ! £79.95
Mozart CD £45.95
Musical Instruments CD £39.95
Schubert CD £45.95
Stravinsky CD £45.95

Occult

Ghosts CD. £31.95
Magicians Secrets CD £24.95
Palmistry CD £34.95
Timelife Astrology CD. £21.95
Virtual Tarot CD £34.95

Other

3D Atlas CD. £49.95
A Brief History of Time CD £44.95
Ancient Cities CD. £39.95
Grolier Prehistoria CD £28.95
History of Art - Greece CD £29.95
History of Art - Rome CD £29.95
Sources of Faith CD. £39.95
War Planes CD £44.95
Wyatt Earp's Old West CD £29.95
Zoo Guides 1, 2 or 3 CDs £29.00

Childrens' Learning

A maths game for ages 8-12 Based on the renowned book, it's popular with kids, teachers & parents.CD.
Counting on Frank
£34.95

Adventures of Pinocchio CD. £24.95
Alladin's Activity Centre CD £31.95
Alphabet Blocks CD £34.95
Always Arthur CD. £33.95
Amazon Trail £42.95
Animal Alphabet CD. £19.95
Annos Learning Games £29.95
Arthur Teacher Trouble CD £25.95
Arthurs Birthday CD. £29.95
Beauty & The Beast CD £24.95
Busy Town CD £29.95
Four Footed Friends. £19.95
Gus Goes Cybertown CD. £31.95
Harry's Haunted House CD £29.95
Just Grandma & Me CD £29.95
Kid Pix II £34.95
Kid Studio £29.95
Kids Typing CD £24.95
Lion King Storybook CD. £38.95
Little Monster At SchoolCD £31.95
Mario is Missing CD. £27.95
Mario Teaches Typing. £34.95
Mario's Game Gallery CD. £26.95
Math Workshop CD £34.95
Millie's Math House £26.95
Mischievous Marvin CD £29.95
Mixed Up Magic CD £29.95
New Kid on the Block CD. £27.95
Peter & The Wolf CD £34.95
Putt Putt Goes To The Moon CD . . £34.95
Putt Putt's Fun Pack CD. £24.95
Putt Putt Joins The Parade CD. . . . £29.95
Ruff's Bone CD £28.95
Sammy's Science House £27.95
Scavenger Hunt Africa £29.95
Silly Noisy House CD. £24.95
Story Book Weaver £19.95
Swiss Family Robinson CD £24.95
Talking Classic Tales CD £29.95
Thinkin' Things. £27.95
Thumbelina CD £29.95
Tortoise and The Hare CD £26.95
Treasure Mountain Maths. £39.95
Treasure Mountain Reading £39.95
Wind In The Willows CD. £29.95

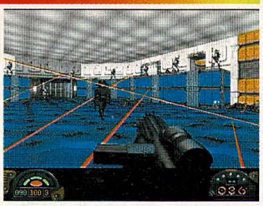
All prices include VAT ..... All prices include VAT ..... All prices include VAT .....

Emerald Creative Technology Ltd
Rapid House
54 Wandle Bank
London SW19 1DW

LEISURE

Dark Forces

Fight the Empire in this stunning game from Lucas Arts. With enhanced graphics and sound for Macs, it's a must for all ! CD Only £42.95



Arcade Games

Alien Arcade (6 non-violent games) ..£34.95
Arc of Doom CD ..£39.95
Another World ..£18.95
Blodbath CD .....coming soon - please call
Complete Lemmings ..£25.95
Crystal Caliburn ..£34.95
Crystal Crazy ..£39.95
Dark Forces CD ..£42.95
Deliverance ..£31.95
Doom II .....coming soon - please call
Dragon's Lair CD ..£39.95
Evolution CD ..£34.95
Flashback ..£42.95
Fury of the Furries ..£27.95
Iron Helix CD ..£28.95
Loony Labyrinth Pinball ..£35.95
Mad Dog McCree CD ..£29.95
Marathon ..£42.95
Marathon CD ..£42.95
Prince of Persia 2 ..£28.95
Rebel Assault CD ..£34.95
Sensory Overload ..£38.95
Spectre VR ..£32.95
Tetris Gold CD ..£34.95
Wolfenstein 3D ..£29.95

Adventure Games

7th Guest CD - Special offer ! ..£19.95
Alone in the Dark ..£39.95
Citadel of the Dead CD ..£19.95
Cosmic Osmo CD ..£39.95
Crystal Quest 2 ..£24.95
Discworld CD.....coming soon - please call
Gabriel Knight ..£31.95
Goblins 3 ..£30.95
Indiana Jones Fate Of Atlantis CD ..£32.95
Indiana Jones Last Crusade ..£17.95
Journeyman Project Turbo CD ..£32.95
Jupiter Impact CD ..£27.95
L-Zone CD ..£42.95
Labyrinth of Time CD ..£34.95
Legend of Kyrandia CD ..£29.95
Leisure Suit Larry 6 CD ..£31.95
Lost Treasures of Infocom 2 ..£24.95
Monopoly, Scrabble & Risk Deluxe ..£34.95
Myst CD ..£36.95
Best of Microprose Games CD ..£29.95
Pirates Gold ..£39.95
Quantam Gate ..£39.95
Return To Zork CD ..£32.95
Secret of Monkey Island ..£17.95
Secret of Monkey Island 2 ..£33.95
Spaceship Warlock CD ..£43.95
Stalingrad ..£38.95
Star Trek 25th CD ..£29.95

Sports

Links Pro ..£33.95
Links Course - Pebble Beach ..£19.95
Links Course - Firestone ..£19.95
Links Course - Big Horn ..£19.95
NFL Trivia Challenge CD ..£34.95
PGA Golf II ..£28.95

Sims

A10 Attack - Now in stock ! ..£44.95
Battle of Britain ..£42.95
Chuck Yaeger's Air Combat ..£35.95
Civilisation ..£33.95
FA/18 Hornet ..£44.95
FA/18 Korean Crisis Mission Disk ..£36.95
Flight Commander 2 CD ..£36.95
Flying Nightmares CD ..£31.95
Fokker Triplane ..£18.95
M4 Sherman Tank ..£34.95
Microsoft Flight Sim 4 ..£38.95
Out of the Sun 3.5" or CD ..£24.95
PAWS CD ..£33.95
Populous ..£19.95
Populous II ..£29.95
Sim City Classic ..£29.95
Simcity 2000 ..£28.95
Secrets of Sim City 2000 Book ..£8.95
Sim Farm ..£29.95
Sim Tower ..£29.95
Sub Battle Sim ..£24.95
Theme Park 3.5" or CD ..£32.95
U Boat ..£34.95
Wolf Pack ..£29.95

Board & Card Games

Battle Chess ..£28.95
Battle Chess Enhanced CD ..£35.95
Bridge ..£27.95
Bridge Baron CD ..£34.95
Casino Master CD ..£39.95
Chess Champion ..£28.95
Chessmaster 3000 ..£28.95
Where In the World is Carmen San Diego Deluxe Edition CD ..£38.95
Where in Space is Carmen San Diego Deluxe Edition ..£38.95
Eric's Solitaire ..£39.95
Kings of Solitaire ..£29.95
Monoploy ..£29.95
Power Poker ..£32.95
Scrabble ..£24.95
Shanghai II ..£18.95
Trivial Pursuit CD ..£39.95
Virtual Vegas CD ..£24.95

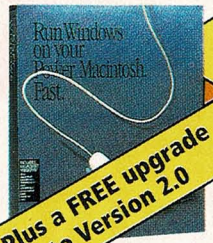
War Games

Warlords II ..£38.95
Legions ..£39.95
Lords of Midnights CD ..£59.95
Operation Crusader ..£36.95
Pax Imperia ..£34.95
Powermonger ..£29.95
Risk Deluxe ..£24.95

Other

Charlie Chaplin CD ..£19.95
Cool Crafts ..£39.95
Daffy Duck CD ..£19.95
Gingerbread Man CD ..£32.95
Grand Canyon Journey CD ..£29.95
Head Candy CD ..£18.95
How God Makes God CD ..£28.95
It's All Relative CD ..£29.95
Jeopardy ..£29.95
Legions ..£42.95
The Mask CD ..£18.95
Mighty Morphin' Power RangersCD ..£39.95
Morgan's Trivia Machine CD ..£28.95
No World Order CD ..£23.95
A Hard Days Night CD ..£29.95
Prince Interactive CD ..£37.95
Residents Freak Show CD ..£33.95
Star Trek TNG Tech Manual CD ..£35.95
Syndicate & Populous ..£38.95
This Is Spinal Tap CD ..£29.95
Top 50 Games CD ..£15.95
Top 50 Games vol 2 CD ..£15.95
Wild Blue Yonder CD ..£39.95
Woodstock CD ..£22.95
Xplora 1 CD ..£29.95

PRODUCTIVITY



Plus a FREE upgrade to Version 2.0

SoftWindows adds a fast networkable PC to your Macintosh and Power Macintosh, giving you the ability to run virtually any software you need. Designed to take full advantage of the powerful 68040 and RISC chips in Macs and PowerMacs, all you have to do is click you mouse to open up the Windows desktop and you're away.

Run multiple Windows applications just like a real PC. Print, save, copy and paste just like a real PC. And send e-mail or use a database over the PC network just like a real PC. Mac and PC applications can share disks, files, keyboards and mouse. But the real beauty of it is that SoftWindows coexists transparently with your Mac. So you won't have less of a Mac, just more of a PC.

PLUS PowerMac owners purchasing SoftWindows now will receive a free upgrade to version 2 when it arrives - around the end of August. This adds full 386 and 486 emulation to make a really powerful combination.

SoftWindows
Mac £229.95
PowerMacintosh £289.95
For a limited period only

Edit your videos using your computer, just like the pros do ! 3 easy steps - just choose the shots you want in the final video, put them in order, then press the button and watch it go ! Video Director uses LANC equipped camcorder, and any LANC equipped or infrared VCR.

SPECIAL OFFER

Special Offer Price £99.95

Disk Utilities

CD ROM Toolkit ..£68.95
Disk Doubler ..£79.95
Hard Disk Toolkit Personal ..£68.95
Hard Disk Toolkit ..£145.95
Mac Tools Pro ..£91.95
Norton Utilities ..£91.95
Now Utilities 5 ..£75.95
Personal Backup ..£36.95
Ram Doubler ..£62.95
SAM 4 ..£56.95
Suitcase ..£40.95
Video Director ..£119.95
Virex 5 ..£68.95

Screensavers

After Dark 3 ..£29.95
Complete After Dark CD ..£44.95
Disney Screensaver ..£31.95
Far Side Screensaver ..£33.95
Flinstones Screensaver ..£21.95
Star Trek Next Gen Screensaver ..£31.95
Star Trek Screensaver ..£31.95
Simpsons Screensaver ..£28.95
X-Men Screensaver ..£29.95

Graphics & DTP

Adobe Dimensions ..£128.95
Art Parts CD ..£24.95
Brush Strokes ..£44.95
Dabbler ..£74.95
Debabelizer Lite ..£94.95

Quay 2 Training CDs

Quark Xpress 3.3 CD ..£102.95
Photoshop 3 CD ..£102.95
Illustrator 5.5 CD ..£102.95
Freehand 5 CD ..£102.95
Pagemaker 5 CD ..£102.95
Macromedia Director 4 CD ..£102.95
Claris Works 3 CD ..£102.95
Mac Basics for DTP CD ..£102.95

A10 Attack ! Its Here ! On CD At Just £44.95

Home Publisher ..£51.95
KPT Bryce ..£115.95
Microsoft Creative Writer CD ..£37.95
Microsoft Fine Artist CD ..£37.95
PrintShop Deluxe ..£36.95
Publish It Easy CD ..£29.95
Sketcher ..£64.95
Turbo CAD ..£91.95
Type Twister ..£27.95
Vista Pro 3.5" or CD ..£79.95

Other

At Ease ..£40.95
Claris Organiser ..£51.95
Now Up to Date ..£68.95
Now Contact 3 ..£68.95
Citadel ..£68.95
Claris Works ..£128.95
Datebook Pro ..£79.95
Exposure Pro ..£95.95
Expresso ..£44.95
File Maker Pro ..£116.95
First Things First ..£51.95
Fox Pro ..£89.95
Kid Desk ..£26.95
Launch Pad ..£36.95
Mac Prefect ..£34.95
MYOB ..£174.95
Quick Keys ..£98.95
Popup Folder ..£39.95
Ram Doubler ..£62.95
Signpost (Route 66 - UK Version) ..£91.95
System 7.5 3.5" & CD ..£79.95
Touchbase Pro ..£79.95

How To Order

When ordering, please don't forget to include the carriage charges ! Charges within the UK are £3.50 for first class post (which usually arrives the next day), £4.05 for first class registered, and £5.50 for next-day courier within the UK mainland, subject to availability. Please ask for overseas pricing, and pricing for islands & Scottish Highlands. You can pay by :

Cheque : Please make cheques payable to Emerald Creative Technology Ltd.

Credit Card : Visa, Mastercard, Access, Delta, Switch and American Express. We only bill your card when we despatch the order, not before.

All pricing includes VAT but not carriage. We reserve the right to change prices - you will be informed of any change when you order. Faulty goods will be replaced or repaired if returned within 30 days of purchase. We will refund if we can't repair the goods. It is the responsibility of the customer to check for compatibility of a particular product with existing equipment before buying.E&OE

VISA MasterCard SWITCH

... All prices include VAT ..... All prices include VAT ..... All prices include VAT

Freephone 0500 749469

Tel : 0181-715 8866 Fax 0181-715 8877

• ORBITAL • CODE • SYSTEM 7 • SUNSCREEM • BILL NELSON •
FUTURE MUSIC
MAKING MUSIC WITH MODERN TECHNOLOGY
WIN a Nureality 3D sound system
Orbital
Playing live can save the rave. Full interview page 60.
ON TEST
E-mu e64 sampler
Soundcraft ProTracker
Digitech RP-10 effects
BassStation rack
Yamaha mixer
Budget sequencers for Atari and Amiga
Issue 33 | July 1995 | £3.95
FUTURE MUSIC CD
JULY 1995
Dual-format disc – now with digital video, over 65 minutes of audio, plus PC and Mac software
EXCLUSIVE
Hear the new synth and analog filter from Peavey
Equipment demos
Reader demos
Tutorials
Over 70 samples
CD tracks from...
CODE + SYSTEM 7
From the publishers of
MACFORMAT

FM talks music technology with

Orbital • Bill Nelson • Code • System 7 • Sunscreem

FUTURE MUSIC

Mag plus audio and CD ROM just £3.95

OUT NOW

Passport's MusicTime

A keyboard, a sound module and a MIDI interface are no longer essential to make music with your Mac. Ian Waugh locates the all-in-one Mac music program.

Seriously under-valued and under-used, the potential of QuickTime remains for the most part untapped by music arrangers on the Mac. It comes with an Extension called QuickTime Musical Instruments which contains samples of the General MIDI sound set, and if you cast your mind back to MACFORMAT 25 you will recall that we explained how to use it to play General MIDI files.

It was only a matter of time before some enterprising developer included software support for the QuickTime Musical Instruments Extension and the first to appear is Passport's *MusicTime*. This is a notation-based sequencer. You can enter music using the mouse or the Mac's keyboard and you can play music using QuickTime samples so you don't need a MIDI keyboard, a sound module or a MIDI interface. Sounds good, eh?

Of course you do need a few things. As *MusicTime* is based on putting dots on the stave, if you can't read music at all then you're in for a rather steep learning curve. But the program itself is quite easy to learn and notation isn't as difficult as you may think.

Let's start at the very beginning – which, according to Julie Andrews, is 'a very good place to start'. *MusicTime* will work without any additional music equipment but it also works with MIDI gear. The first step is to configure the software to your equipment. This is reasonably straightforward and you can use Passport's MIDI driver or Apple's MIDI Manager to control the system. Apple's MIDI Manager is preferable and should work on all but the slowest Macs, but you can switch to the Passport driver if you have problems. I didn't.

All keyed up

If you have no external equipment, select **Built-in Synth** from the **Setup** menu and you immediately have access to the QuickTime sounds. This option effectively bypasses the MIDI interface and connects the system straight to the QuickTime samples.

The main differences between using MIDI equipment and QuickTime samples are that with QuickTime you cannot access any of the instruments which are connected by MIDI and the output is directed exclusively to the Built-in Synth, so port selections (the modem or printer port) are unnecessary. Also, the Device dialogue box which is used for selecting sounds via MIDI is not available to you. Instead, a **Choose Instruments** dialogue box appears from which you can select the Built-in sounds.

If you have a MIDI keyboard, you can use it to enter notes. If you don't, you can click notes directly onto the stave with the mouse. A note palette contains note durations, rests and accidentals. All you do is double click on a symbol, the cursor turns into the symbol and then you simply click it into place on the stave.

There are actually eight palettes – Notes, Graphics, Clefs, Dynamics, Marks, More Marks, Symbols and Colours – which you can place anywhere on the screen. But you can also use just one palette and click on its name to cycle through the others, which can be useful if you only have a small monitor.

The program also has an on-screen keyboard which you can click on to enter notes and you can literally play the Mac's QWERTY keyboard. You may experience a delay between the time you press the keys and the time

ORIGINAL SYN

The RCA Electronic Music Synthesiser was one of the first to be created. It was the product of a scientific investigation into music synthesis in the early 1950s and was controlled by punched sheets of paper.

STAVE TRADE

Modern staves have five lines but in the 11th century, plainsong was written on four-lined staves coloured red, green and yellow. In the 16th and 17th centuries six or more lines were used for keyboard music.

Continued on next page

JARGON BUSTERS

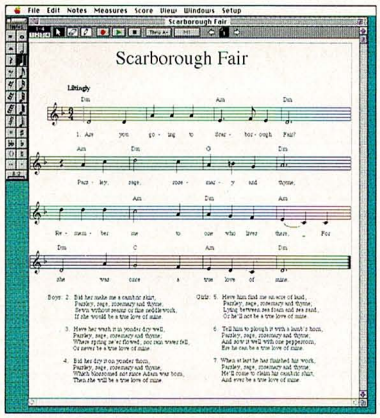
MIDI: Musical Interface Digital Interface – essentially a communications protocol to enable music information to be passed between various devices.

General MIDI: this is a standard which specifies that all GM instruments contain a certain set of sounds, so a MIDI file played on any GM instrument will sound roughly the same.

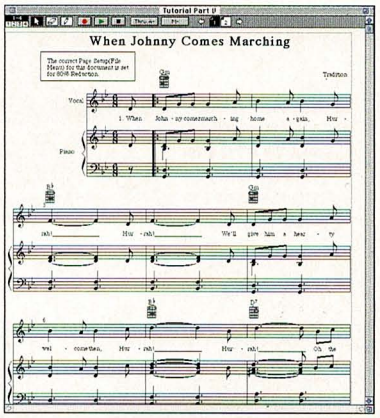
Standard MIDI File: a file format which enables a MIDI file to be loaded into any sequencer which supports the format.

Quantise: the process of pushing and pulling notes onto certain divisions of the beat to correct sloppy timing.

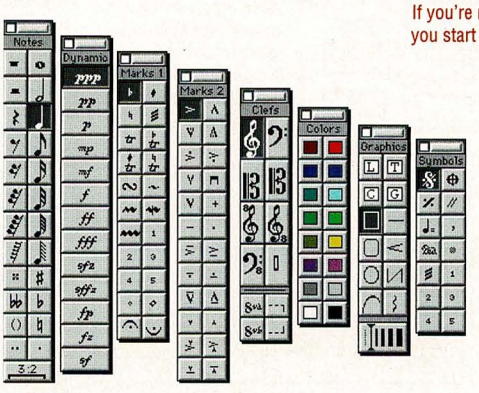
MIDI controllers: types of MIDI data used to control aspects of a musical performance such as pitch bend, volume velocity and modulation.



MusicTime's screen can be as uncluttered as you wish – a score page and a single palette is all you need.



If you're not sick of this song when you start the tutorial, you will be by the time you finish it!



MusicTime's eight palettes, which contain most of the music symbols and functions you could wish for. You can place them anywhere on the screen.

THE MAC'S BUILT-IN SYNTHESISER

QuickTime 2.0, which MACFORMAT has been giving away on our cover CDs for the past umpteen months, includes an Extension with the strangely informative name of QuickTime Musical Instruments (QTMI). It contains instrument samples from the General MIDI sound set licensed from Roland, who helped to create the standard.

A normal GM sound module has 128 sounds. The QTMI Extension contains only 43. Where there are no identical sounds, samples are used more than once. This process of sound mapping leaves little room for variation. For example, the GM sound set has several string, guitar, organ and piano variations whereas the QTMI sounds have to make do with just one sample of each.

Most GM sound modules have anything from 4 to 8Mb of sample storage space in ROM. The samples in the QTMI Extension have been quite heavily compressed – down to around 430K. They are also only 8-bit samples, whereas virtually all stand-alone GM modules use higher quality 16-bit samples. Despite these limitations, the output is still surprisingly good.

The final point to note is the polyphony, or number of notes the system can play at the same time. Most GM modules are 24 or 28-note polyphonic. However, many GM sounds are actually constructed from two sound elements which can, in a worst-case scenario, halve the polyphony. In practice, using an 'average' selection of sounds, most GM units will have a polyphony of about 16 to 18 notes.

The QTMI Extension is only eight-note polyphonic. If you try to play a piece with more notes sounding at the same time, some notes will stop playing as they are 'borrowed' for other music parts. When writing music for playback using the QTMI Extension, this is something you need to be aware of.

SAMPLE IT

One of the first low-cost commercial samplers on the market was Akai's S612, which was six-note polyphonic, had 12-bit resolution and, at its highest sampling rate, could only record a one-second sample. It cost a mere £749.

the notes sound but this depends to a certain degree on the speed of your Mac. Even with a fast Mac, it's not an ideal way to enter notes in real-time although it is useful for experimenting with music lines.

The notation side of *MusicTime* – which is the major part – is quite sophisticated. You can add staves to a score and bracket them together in various ways. You can beam notes, transpose them and add dynamics, text, lyrics and ties. A stave can hold up to four voices, which is useful for vocal arrangements. Lots of piano music, including sheet music arrangements, have two or more voices on one stave, too. You can also colour individual parts to make them easier to see. The size of the staves can be changed, making it easy to fit the music onto almost page size. An Auto Space function takes care of note spacing although you can switch it off and alter symbols manually if you wish.

One useful feature is the ability to add chord symbols at the top of a music line, like you see in sheet music and 'busker' books. You can select the chords from an extremely comprehensive list or use Chord Parsing. This is a clever feature which reads the chord you are playing on a MIDI keyboard or the Mac's keyboard, analyses it and then places the symbol on the screen.

The program will read Standard MIDI Files and convert them to notation, but you will need to set a quantise value to make the final score look right. You can export the score as a Standard MIDI File, too, for use in other sequencers.

Scoring made easy

Most functions can be accomplished using just the mouse. Operation is easy as there are only three main tools to worry about – pencil, eraser and pointer. There are also keyboard shortcuts for just about everything, which can vastly speed up operation once you get into it.

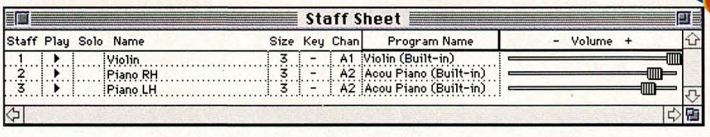
MusicTime is essentially a scorewriter and there's no provision for editing MIDI controllers such as Pitch Bend although you can record them. But you can produce a very professional-looking score and print it out. The program even supports Tiles, a way of breaking up a score which won't fit onto a standard sheet of paper onto separate sheets so you can join them together afterwards.

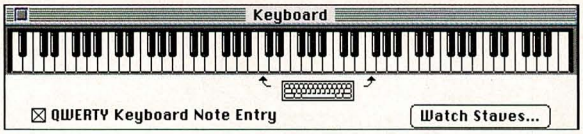
The manual is mainly in the form of a tutorial – I guarantee you'll be heartily sick of *When Johnny Comes Marching Home* by the time you've worked your way through it! It's excellent but it has no reference section.

MusicTime is a rather excellent budget-priced scorewriter which just happens to be able to use QuickTime's Musical Instruments Extension. As such, there's nothing more you need to make music. It's the first all-in-one Mac music program and it has removed the necessity for the beginner to splash out on expensive MIDI gear, although you can add it later if the music bug bites. **MF**

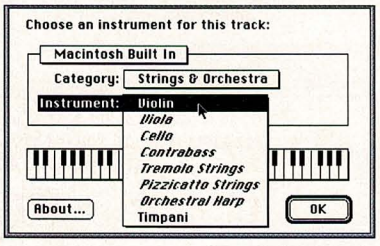
MACFORMAT Classic

The Staff Sheet is where you enter track names, select the stave size, MIDI channels, the instrument sounds and adjust the volumes.

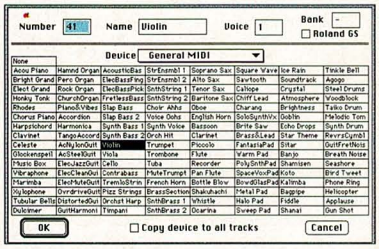

Staff Sheet
Staff Play Solo Name Size Key Chan Program Name - Volume +
1 Violin 3 - A1 Violin (Built-in)
2 Piano RH 3 - A2 Acou Piano (Built-in)
3 Piano LH 3 - A2 Acou Piano (Built-in)



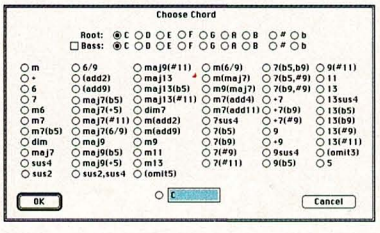
Enter notes on the score by clicking on or playing the on-screen keyboard. Move the little QWERTY keyboard left and right to change the octave.



When used with the Built-in Synth, the Instrument selection box enables you to select any of the QuickTime samples.


Number 41 Name Violin Voice 1 Bank - Roland GS
Device General MIDI
None
Acou Piano Hamnd Organ AcousticBas StrEnsmbl 1 Soprano Sax Square Wave Ice Rain Tinkle Bell
Bright Grand Perc Organ ElecBassFing StrEnsmbl 2 Alto Sax Sawtooth Soundtrack Agogo
Elect Grand Rock Organ ElecBassPick SnthString 1 Tenor Sax Calliope Crystal Steel Drums
Honky Tonk ChurchOrgan FretlessBass SnthString 2 Baritone Sax Chiff Lead Atmosphere Woodblock
Rhodes PianoAVibes Slap Bass Choir Aahs Oboe Charang Brightness Taiko Drum
Chorus Piano Accordion Slap Bass 2 Voice Oohs English Horn SoloSynthVo Goblin Melodic Tom
Harpsichord Harmonica Synth Bass 1 Synth Voice Bassoon Brite Saw Echo Drops Synth Drum
Clavinet Tango Accord Synth Bass 2 Orch Hit Clarinet BrassSLead Star Theme RevrsCymbl
Celeste AcNylonGuit Violin Trumpet Piccolo FantasiaPad Sitar GuitFretNois
Glockenspiel AcSteelGuit Viola Trombone Flute Warm Pad Banjo Breath Noise
Music Box ElecJazzGuit Cello Tuba Recorder PolySynthPad Shamisen Seashore
Vibraphone ElecCleanGui Contrabass MuteTrumpt Pan Flute SpaceVoxPad Koto Bird Tweet
Marimba ElecMuteGuit TremloStrin French Horn Bottle Blow BrwdSawPad Kalimba Phone Ring
Xylophone OverdriveGuit Pizz Strings BrassSection Shakuhachi Metal Pad Bagpipe Helicopter
Tubular Bells DistortedGui Orchst Harp SnthBrass 1 Whistle Halo Pad Fiddle Applause
Dulcimer GuitHarmoni Timpani SnthBrass 2 Ocarina Sweep Pad Shanai Gun Shot
OK
Copy device to all tracks
Cancel

When used with a MIDI instrument, the **Device** dialogue box enables you to select any sound very quickly.


Choose Chord
Root: C C# D D# E F F# G G# A A# B
Bass: C C# D D# E F F# G G# A A# B
m 6/9 maj9(#11) m(6/9) 7(b5,b9) 9(#11)
+ (add2) maj13 m(maj7) 7(b5,#9) 11
6 (add9) maj13(b5) m9(maj7) 7(b9,#9) 13
7 maj7(b5) maj13(#11) m7(add4) +7 13sus4
m6 maj7(+5) dim7 m7(add11) +7(b9) 13(b5)
m7 maj7(#11) m(add2) 7sus4 +7(#9) 13(b9)
m7(b5) maj7(6/9) m(add9) 7(b5) 9 13(#9)
dim maj9 m9 7(b9) +9 13(#11)
maj7 maj9(b5) m11 7(#9) 9sus4 (omit3)
sus4 maj9(+5) m13 7(#11) 9(b5) 5
sus2 sus2,sus4 (omit5)
OK
Cancel

The multifarious chord list from which you can create hundreds of different chords.

MUSICTIME

Price: £129.95 Out: now.
Requires: LC or better, 2.5Mb of RAM, System 6.07 or later. MIDI interface and keyboard preferable but not essential.
For more details contact Arbiter on 0181 970 1910.

FEATURES 88%

It's a scorewriter, not a sequencer. For a budget program it is very well appointed, as they say at the Palace.

EASE OF USE 90%

Dead easy to use.

DOCUMENTATION 88%

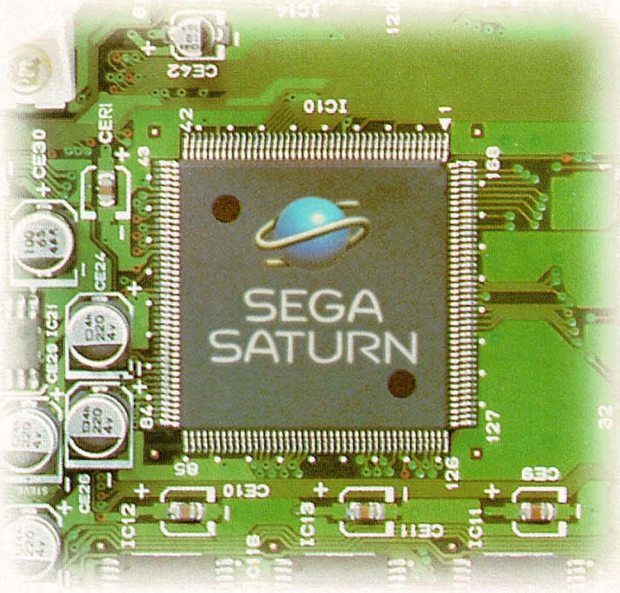
A jolly good tutorial section, essential to learn all the program's features.

VALUE FOR MONEY 94%

A scorewriter and set of General MIDI sounds in one. Wow!

MACFORMAT RATING 90%

Developing for Sega's **Saturn**



It's got the
brains.
But has it got the
brawn?

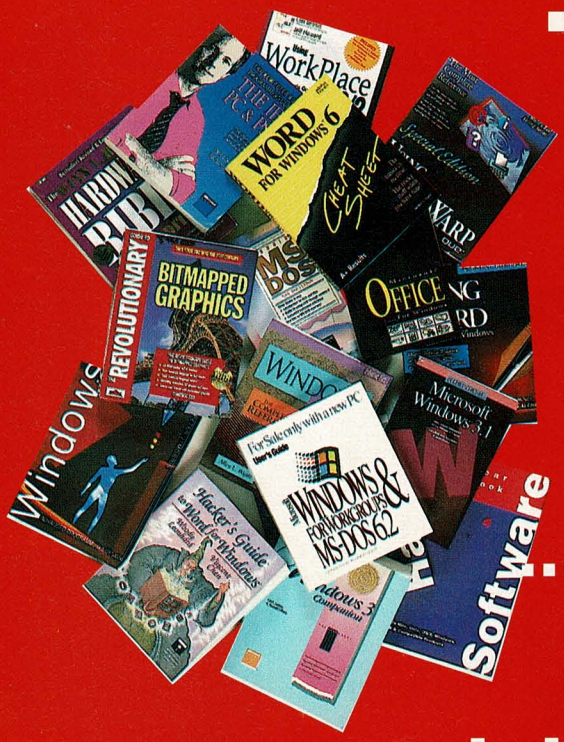
Magazine of the year

Industry awards

Issue **twenty-three** onsale now at selected newsagents

EDGE

To get to grips with the PC



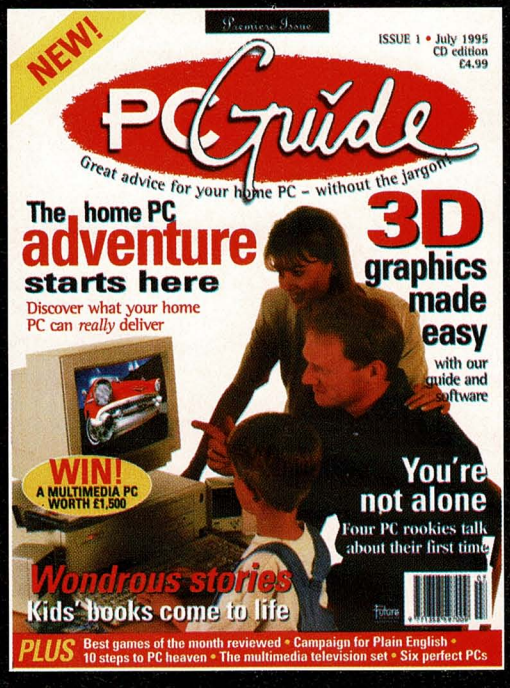
...read through all these weighty tomes

...and you'd be talking in computer gibberish for ever more

...or you could just read *PC Guide*

...and your arm muscles might waste away

Let's get a few facts straight. Nowadays everyone knows you don't have to be a boffin to use a PC. Everyone also knows that PCs are the biggest thing to hit the home since the video cassette recorder. So the big question is why do all computer magazines talk to readers as if they're experts? Answer – they don't. Not anymore. *PC Guide* talks to you like real people and we talk about the things that you're interested in – we don't get bogged down with databases and we don't fill over 50% of the magazine with dull reviews. Instead, we'll introduce you to new PC applications, show you how to get more out of your PC and solve any problems that come up. In short, we'll make your PC a dream to use.


NEW!
Premiere Issue
ISSUE 1 • July 1995
CD edition
£4.99
PC Guide
Great advice for your home PC – without the jargon
The home PC adventure starts here
Discover what your home PC can *really* deliver
3D graphics made easy
with our guide and software
WIN!
A MULTIMEDIA PC WORTH £1,500
You're not alone
Four PC rookies talk about their first time
Wondrous stories
Kids' books come to life
PLUS Best games of the month reviewed • Campaign for Plain English • 10 steps to PC heaven • The multimedia television set • Six perfect PCs

Don't miss *PC Guide*,
OUT NOW

PC Guide

SHAREWARE AND PD

Gently cruise the Internet without the aid a life belt, using Derek Smith's guide to what's hot and what's only slightly tepid in the world of shareware.

There have been many reports on the news about the explosion of pornography on the Internet. This has worried me greatly. I can't find it. Still, there are plenty of tacky shareware programs around which it is my duty to examine, several times. We also have yet another hit game from Ambrosia. Some good clean violence there.

ColorModel Clock

CLOCK

Shareware $10

What's the time, Mr Wolf? Time to look at girlies! This clock displays the time and date in a small typeface underneath relatively large pictures of supermodels Cindy Crawford and Cathy Ireland in swimsuits. It's the computer equivalent of a Playboy calendar.

However, the program is rubbish. Not because I'm averse to looking at beautiful women, not because it takes up nearly 2Mb of disk space, and not because it's blatantly sexist. No, the reason I don't like the program is because the pictures, all 30 of them, are grainy scans displayed in only 256 colours. Also, because it's a standard application rather than an Extension, which means that any program you use will come to the front, covering up the pictures... um, I mean covering up the time.

Although the pictures are pretty tame, the author is obviously self conscious of his work, because there is a hot key, which replaces the luscious beauty with a picture of Mickey Mouse. (Ironically this does rather sum up the program.) So am I going to keep this tacky piece of software. Well, it's got this good alarm, see, with ten programmed settings – no trust me the alarm is really very useful...

All the shareware featured here is on our covermounted CD-ROM

Fallacy Tutorial 1.5

EDUCATION

Freeware

'If there is more than one person in the queue in front of you, we will open another checkout.' This is a fallacy, obviously, but what type? *Fallacy Tutorial* introduces you to 24 different types of fallacy, then names, categorises and defines them. This is indeed an authoritative reference for fallacies of each and every type.

The style is not entirely clear, with sentences like 'If A tells B that X or Y is true and B confirms that Y is false then A assumes that B is true'. Funnily enough, that was one of the answers I gave in my maths 'A' level.

Once you have read all these lies, you can test your knowledge with a quiz. You are given a fallacious argument and have to decide which type of fallacy best describes it. All terribly exciting and no cheating.

The problem with this program is that it takes itself too seriously. Not many people are compiling PhDs in fallacy, so for a wider audience, a bit a humour would have been a relief. There's also a Pro version of the program on the CD which is almost exactly the same, but also has some nice colour buttons. Oooh.

ANAGRAMS

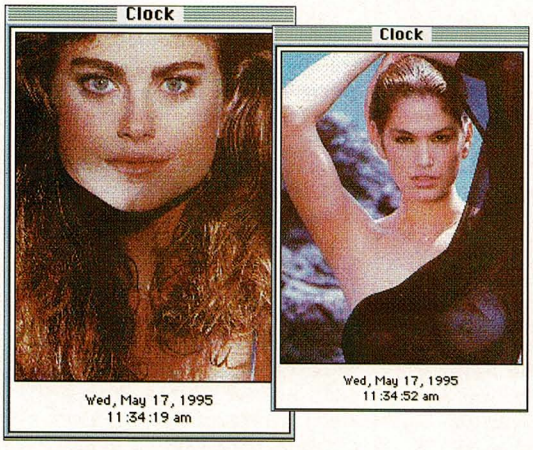
All the margins notes on the shareware pages this month are anagrams created with *Anagrams* from this month's cover disk.

ALEX SUMMERSBY

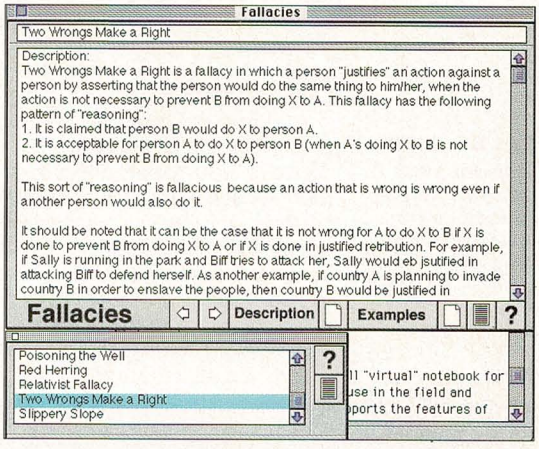
(Editor)

Relaxes my bums, blames sexy rum, axes my slumber, barmy ex mussel, bless my rum axe, burly exam mess, abuses Mr xylem, sexy lamb serum, brass xylem emu, balmy sex serum, my bra seems lux.

Continued on next page



ColorModel Clock brings supermodels Cathy Ireland and Cindy Crawford to your desktop. Hardly a cure for excessive clock watching.


Fallacies
Two Wrongs Make a Right
Description:
Two Wrongs Make a Right is a fallacy in which a person "justifies" an action against a person by asserting that the person would do the same thing to him/her, when the action is not necessary to prevent B from doing X to A. This fallacy has the following pattern of "reasoning":
1. It is claimed that person B would do X to person A.
2. It is acceptable for person A to do X to person B (when A's doing X to B is not necessary to prevent B from doing X to A).
This sort of "reasoning" is fallacious because an action that is wrong is wrong even if another person would also do it.
It should be noted that it can be the case that it is not wrong for A to do X to B if X is done to prevent B from doing X to A or if X is done in justified retribution. For example, if Sally is running in the park and Biff tries to attack her, Sally would eb jsutified in attacking Biff to defend herself. As another example, if country A is planning to invade country B in order to enslave the people, then country B would be justified in
Fallacies
Description
Examples
Poisoning the Well
Red Herring
Relativist Fallacy
Two Wrongs Make a Right
Slippery Slope

Fallacy Tutorial is an encyclopedia of all things fallacious. *[Sounds a bit rude to me – Ed]*

CONFUSED ABOUT SHAREWARE?

■ **Shareware** is a form of 'try before you buy' software selling and it's a great idea so long as you're honest. When you get some shareware, the documentation file accompanying it will tell you how much it costs – typically it's somewhere between US$5 and $40 – and where to send your money. If you like the software and decide to keep it, then you're morally obliged to cough up. Not only do you get the satisfaction of boasting to friends about how honest you are, but the author will often give you something in return for registering, like a printed manual, or updates when released. The most common problem is sending money abroad, but as many shareware authors now accept credit cards, it's getting easier.

■ **Freeware** means that you don't have to pay for it at all. There are many derivations such as postcardware, which means you have to send a pretty postcard to the author.

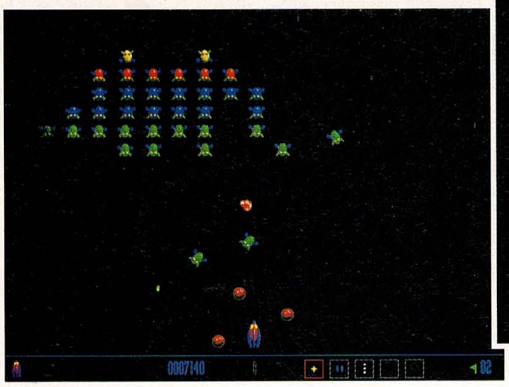
But freeware is not strictly the same as **Public Domain** (PD) because although you don't pay for freeware, the author keeps copyright and you have to follow his terms and conditions to use the program. This often means keeping all the files together and not using or selling them for profit.

DEREK SMITH

(Technical Writer)

Desk hermit, skirted hem, risked them, thirds meek, hiked terms, treks hid me, desk het rim, heed skit Mr, herd skit me, kids her met, skid thee Mr, stem her kid.

Why is it that invaders from outer space can't even colour coordinate their attack armadas?



There are loads of extras weapons and power ups to help you. Here I've got my rotating balls out. That should scare the aliens.

GARY TIPP
(Production Editor)
Party pig, tapir gyp, tippy gar, trip a gyp, art gyp pi, gap pry it, pig pry at, tippy rag, gap try pi, pry tag pi.

EVA S LAUER
(Production Assistant)
Real suave, larvae use, values ear, elves aura, re-use lava, revue alas, save a lure, rave us ale, save a rule, a sure vale.

Hot Spot

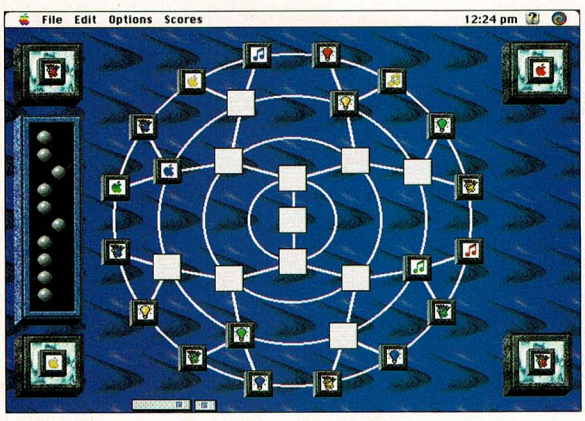
PUZZLE GAME

Shareware $15

There are several things in life that turn my blood cold, such as new TV dramas about a maverick cops, phone calls that start 'can I speak to the house owner' and envelopes which state 'you have won a prize'. But nothing is more frightening than the phrase, 'minutes to learn, years to master'. If life was like my word processor, I would search for this phrase wherever it lurked on the planet, and replace it with 'frustratingly stupid puzzle game that I can't do'.

The idea of *Hot Spot* is to place tiles on four concentric rings. Tiles contain one of four pictures in one of four colours. Tiles adjacent on the same ring cannot be the same colour or contain the same picture. However tiles on the next ring inside, must match their adjacent partners on the next outer ring, for both colour and picture. I hope you got all that?

Of course, the gameplay isn't important. What's important is that it is designed to be incredibly difficult with more combinations than the National Lottery. I once spent a whole week solving one of these puzzle games to be rewarded with a little dialogue box saying 'Well Done'. Tip to young readers: never headbutt the monitor. Believe me, it hurts.



Hot Spot is a very difficult puzzle game. The puzzle is why anyone would pay $15 to waste hours of their life getting frustrated.

Swoop

ARCADE GAME

Shareware $15

This game would have been Star of the Month, except it's yet another game from Ambrosia, who won that honour a couple of months ago. They have this habit of taking old arcade games, bringing them up to date, polishing them until they shine, and producing exceptionally playable games.

Swoop is based on the old *Galaxians* game which appeared shortly after *Space Invaders*, and was somewhat similar with suicidally nasty aliens marching back and forth waiting to be shot. The difference is that these aliens suddenly swoop down the screen at you with unnerving accuracy.

What is particularly impressive about *Swoop* is that the gameplay is perfect. It's difficult, but not impossible, and so you desperately want to improve on your last score. The background music actually gets left on, unusual in a game, and the sound effects are just about perfect.

For anyone who likes games, this is definitely one to get hold of, and is well worth the shareware fee.

SpaceInvader! 1.03

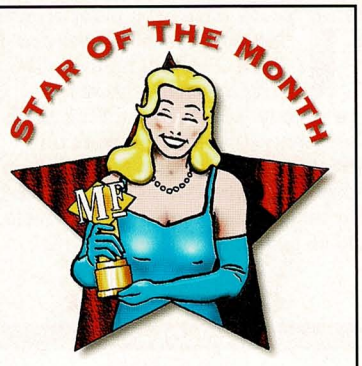
ARCADE GAME

Shareware $20

This arcade game makes *Swoop* look even better. Which is not to insult it – well, not a lot anyway. Despite the name, it's not a clone of the arcade game that ate my pocket money all those years ago, although it does involve shooting aliens with your gun at the bottom of the screen.

In this case the aliens are much less regimented, and tend to wander about the screen doing their own thing, as many aliens often do. Every now and again a balloon meanders across the top of the screen and drops a power-up which you have to collide with, rather than shoot.

In its favour, the game's good points include a sensible scoring system where bullets cost points, meaning that you try to conserve shots rather



Smile

ANIMATION

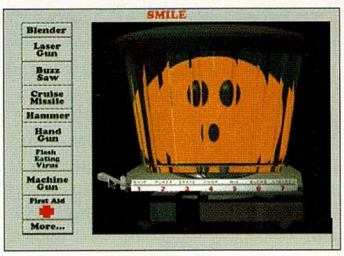
Shareware $12

The debate over violent computer games rages on. Defenders say it's not real violence and that the enjoyment is derived from the gameplay, not from shooting people. Enter *Smile*. This is violence, pure and unadulterated. No gameplay, no justification, and I love it.

You start with a beautifully animated smiley character who looks around the screen and chats away to you like a friend. But you're not his friend, you're going to hurt him, a lot. Down the left side of the screen are various options such as Hand Gun. Clicking on it prompts a gun to appear at the bottom of the screen, and Mr Smiley starts to looks worried and asks what's going on. Too late he realises that he's been conversing with a sadist. Click on the gun and you blast a hole clean through his smug little face.

Clicking on the First Aid button restores him to health, offering you the chance to sample the flesh eating virus, or my favourite, the blender! Even after torturing the happy chappy for several hours there were still little joys to discover. Try poking him in the eye – better still, both eyes. Although there are plenty of other options, you won't see them until you pay up your shareware fee. Methinks the author is in for a lot of money.

So is this just harmless fun? No, it's deeply sick and displays a cruel and vindictive side to our personalities. Which leads to the salient question, is the violence in the game, or is it in us?



Torturing Mr Smiley helps me get rid of my anger at the hippie era with all its drugs and free sex. I was too young to enjoy it!

ASCIIPaint

COMMS

Freeware

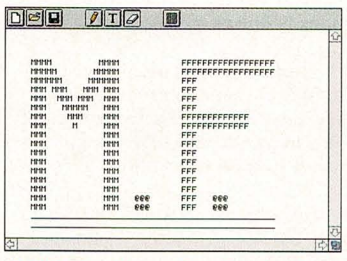
Comms is a funny world, filled with people who spend too much time working out that if you type a semi colon followed by a dash and a bracket, you get a winking symbol. Really, look ;-)

There are many other conventions and mannerisms, often referred to as Netiquette. The argument is that these are necessary to convey signals such as irony, usually conveyed in the voice. For instance, typing in capitals is the same as shouting.

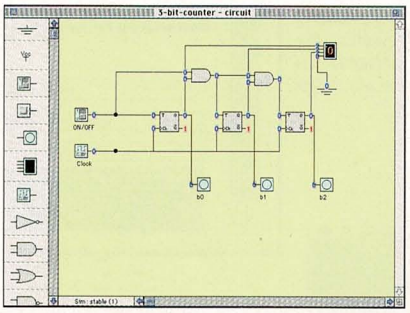
One recent development that has started to appear at the bottom of some e-mails I have received, is a little picture made out of text characters. Obviously bored with funny faces, comms addicts have progressed to the hard stuff. Yep, you've guessed it, ASCII art.

To help them in this desperately sad life, there is *ASCIIPaint*. It's like any other paint program, except that instead of painting with colour, you paint with text. Because e-mail tends to use mono spaced characters, as typewriters do, your little piece of artwork should arrive at its destination much as it left you.

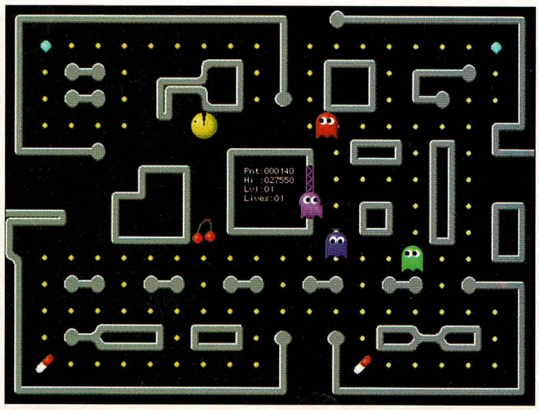
This could start a whole new wave of techno art (fingers crossed, it doesn't). It's ironic now that e-mail makes life so efficient we have to invent stupid pastimes to keep ourselves busy. Personally I can think of better things to do, like hoovering the cat, but I'm sure that it will find great popularity with anyone who is a right winker.



ASCIIPaint enables you to create artwork using text characters. It's rather like this sentence really – pointless.



I loaded *LogicSim* on a PowerMac 8100 and in three hours it had invented a computer with genuine human emotions, but was too shy to tell me about it.



The gameplay of *PacMac* runs something like this: go up and down, get eaten, lose cherry. Please fill in your own double entendre here.

than constantly blasting. Progressing levels involves scoring another 2,000 points, rather than killing a set number of aliens, which is a nice touch.

On the against side, the sound is puny, the graphics bizarrely outdated, and the collision detection is judged with the accuracy of a visually impaired football referee. Ironically, it is fairly addictive in a stupid kind of way, but looks rather inadequate compared to *Swoop*, which costs $5 less.

LogicSim 2.1

CIRCUIT DIAGRAMS

Freeware

I've never been very good at electronics, and the wife banned me from the wire strippers ever since I unsuccessfully tried to improve the performance of her grandmother's Stannah stairlift. Hey, am I supposed to know the structural tolerance of every terminal bracket in the world?

LogicSim might have helped. It enables you to draw electrical circuits, complete with switches, resistors and those funny yellow wiggly bits. Not getting too technical, am I? Anyway, having drawn your circuit, you can flick the on/off switch and see what would happen. Lights flash, gates open, and resistors, er... resist. The simulations aren't entirely accurate though. Where's the smoke and the dog whimpering in the corner?

It's all very neat, works like a Mac program should, and steadfastly refused to crash. The only problem is the complete lack of a manual or instructions, making it useless for actually learning about the subject. However, it should prove invaluable for physics teachers, up and down the country. I'm sure they would be prepared to spend time learning the program if it meant never letting class 4B near the mains again.

PacMac!

ARCADE GAME

Freeware

There have been plenty of *PacMan* shareware games on the Mac, including Alex Metcalf's *Maniac*, which he talked about in MACFORMAT 20. This one, however, is more faithful to the original, without all those silly gimmicks and bonuses that provide gameplay. Nah, this gives it to you straight and faithful.

After ten minutes' play, it's clear that this game is more dated than Liz Taylor. There's nothing actually wrong with it, and purists will be quite happy, but if you are after a *PacMan* game, then there have already been so many better versions.

The sound also lets the game down. Amnesty International recently announced that it has been used by one country to drive political prisoners mad. A shame, because in between the music are some good samples. The best things in life are free. But so are quite a few totally crap things.

PianoSim II 1.0

MUSIC

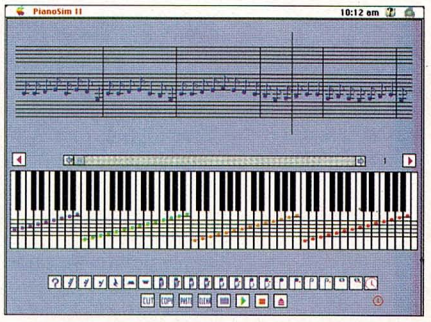
Shareware $40

Do you fancy yourself as a Liberace? Personally I fancy myself as Angela Rippon, but that's another story. *PianoSim* puts a keyboard on your Mac screen. Click on a key and you get the appropriate electronic beep straining desperately to sound like a £10,000 Steinway, but instead sounding like... a computer beep.

Using the mouse or keyboard, you can bash out tunes and record them for playback. An editor enables you to alter mistakes and readjust your masterpiece, and when it's all done you can select what instrument you would like to play it on. You can choose the flute (which sounds like a distressed

Continued on next page

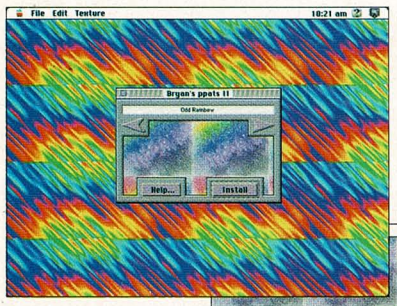
Technological leaps over the last decade mean that using *PianoSim* is even better at annoying other people in the next room than playing *London's Burning* on the recorder.



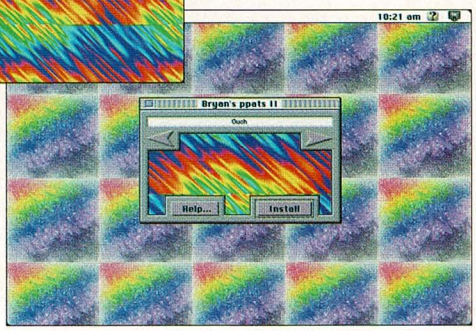
MARK NOTTLEY
(Art Editor)
Talky mentor, Mr Knotty Ale, knotty realm, rankly totem, my anklet rot, alter my tonk, knelt to army, my lank otter, arty monk let, kern malt toy, omen talk try.

EMMA THOMPSON
(Art Assistant)
Phantom memos, mammoths open, ashmen mop tom, hansom met mop, smooth map men, means moth mop, amps moon them, homo mens tamp, moan mops them.

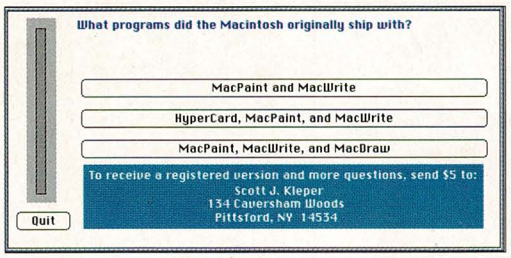
JIM DOUGLAS
(Publisher)
Also dim jug, dualism jog, am idols jug, go mud jails, jigs a mould, am solid jug, aims old jug, am jugs idol, slim duo jag, slum aid jog, do smug jail, am loud jigs.



Bryan's ppats are one of many such collection of Desktop patterns, ideal for making you feel distinctly queasy.



MacFolkLore asks a hundred multiple choice questions like these. Hmm... I thought Macs came with *Tetris*.


What programs did the Macintosh originally ship with?
MacPaint and MacWrite
HyperCard, MacPaint, and MacWrite
MacPaint, MacWrite, and MacDraw
To receive a registered version and more questions, send $5 to:
Scott J. Kleper
134 Caversham Woods
Pittsford, NY 14534
Quit

I tend to download files from the Internet just based on their names. Imagine my disappointment with *Slick Willie*.

ROD LAWTON

(Author)

Drawl onto, drawn tool, tonal word, drown a lot, not a world, no low dart, dart on owl, want drool, trod on law, now to lard, do owl rant, now at lord.

ANDY STORER

(Mac veteran)

Dreary snot, errands toy, dry senator, nosy retard, drones arty, trendy soar, nasty order, ready snort, yonder rats, snared tory, try treason, ternary sod, darn oyster, rodents ray.

POWER MACINTOSH

Apricot showmen, miscreant whoop, champion towers, cowman trophies, cartoons whip me, in what composer, no rows emphatic, worship came not, moist anchor pew, armies chop nowt, armpit snow echo.

parrot), the drum (a diseased elephant), the electric guitar (owl with laryngitis), or import your own sound and use that as an instrument.

PianoSim is well presented, with a clear interface, but is very un-Mac-like in that it has no pull down menus. As a bit of fun it's fine and will probably keep children amused for a while. Unfortunately you can't save any work until you pay the registration fee, which I'm afraid is too high for what is an unsophisticated little program. One last point. Why do some people insist on giving their software the Roman numeral II, then call it version 1?

Bryan's ppats II

DESKTOP PATTERNS

Freeware

There are dozens of shareware ppats around, but I thought these have a certain style. Ppats are Desktop patterns. They have a maximum size of 64 x 64 pixels and can contain any picture or illustration. Often they are designed as tiles, so that they fill your screen with a continuous pattern.

Originally you needed another program, such as *Texture Installer*, to install the patterns, unless you fancied hacking away with *ResEdit*. However, System 7.5 makes life much simpler with its Desktop Patterns Control Panel. You can now just copy and paste textures directly into it. Hunt out some ppats and liven up your Desktop.

MacFolklore

QUIZ

Shareware $5

Think you're a Mac expert? Okay then, which Macs were the first to have asynchronous SCSI? Answer: the original AV Macs. Thrilling, and there's more where that came from.

MacFolklore tests your knowledge of all things Mac, including internal Apple politics and how much RAM the first Macs had. By the way, the answer to the last part is 128K. Those were the days. They knew how to write efficient programs then.

It's all harmless fun, in a dull kind of way, and depending on your performance, you get a rating at the end. The rating system is rather strange though, with Nerd being awarded if you only get half right. Surely you're a nerd if you get them all right!

Perhaps the most appealing point of the program is the ability to alter the questions. They are saved in a normal text file, meaning that you can either add to the existing questions or, more usefully, delete them all and write your own multiple choice quiz. My quiz now asks: 'Which Macs were the first to have asynchronous SCSI?' Answer: I really, really don't care.

Slick Willie 2.0

GAME

Shareware 5$

Slick Willie, for those not interested in American politics, is the nickname of Bill Clinton, the world's most powerful leader, and the guy with his sweaty finger on the big red button marked 'use only in emergencies.'

This game is an attempt at combining gameplay with satire. You control a little Bill Clinton sprite with the mouse. On the screen are ten or so cheeseburgers, preferred food of US presidents. Your task is to guide wee Willie around the screen collecting the floating cheeseburgers, but the game, like political life, is littered with dangers. These come in the shape of newspaper headlines or drugs. Bump into them and you freeze for a few seconds. Not very good news when you are up against a very stringent time limit. Bonuses come in various forms, such as cash handouts or beautiful women in swimsuits. Gobble them up for a good time. Well, I never said it was subtle satire.

The humour lasts for a few seconds but it's simply not a very good game. Not that it ever claimed to be. The author is quite well aware that it's just a bit of harmless fun and not to be taken at all seriously. Hmm... rather like President Clinton after all. **MF**

WHERE TO FIND THEM

We often get calls from readers who want to know how to get hold of some of the shareware reviewed in these pages. Well, here are some of the methods:

1. Buy the CD-ROM edition of MACFORMAT: all the shareware we review in each issue is on there in a separate folder. There's also loads of other shareware on the CD-ROM every month, sorted into separate categories for you.

2. Write to a shareware dealer; there are several who advertise in the back of MACFORMAT. The dealer should have the program you're after, especially if he subscribes to our CD-ROM edition!

3. Use the Internet, if you have access. One of the best sources around is Imperial College at **src.doc.ic.ac.uk**. Use ftp to connect (login: anonymous; password: your e-mail address) and cd to computing/systems/mac. Personally, I use the umich directory, but sumex is fine as well.

4. Local user groups often have libraries of shareware, so see if you have one near you. There are some listed in our Reader Ads section (have a look on page 138).

Finally, wherever you get your shareware, beware of viruses. At the moment, *Disinfectant 3.6* (on last month's cover disk and CD-ROM) is the best and cheapest way of staying safe.

Ordinary People

With a constant stream of upgrades and new models, *ordinary* Mac users are being asked to dig deeper and deeper into their pockets. A reader laments.

In the beginning, not so long ago and in a nearby country, there was Apple and Apple begat the Mac. All over the world, people became addicted to the Mac, purchasing ordinary Macs, enjoying the forward-thinking, jargonless, plug and play ease of use, the friendliness, the efficiency and the amusement thereof.

These loyal Mac addicts nurtured their Macs, lovingly upgrading systems and chips and adding peripherals enabling the ordinary Macs to achieve ever-increasing heights of ability, peace and understanding. Macs were particularly successful in the areas of desktop publishing and graphics.

In the same nearby country, before Apple existed, the only way people could compute was on a PC. PCs were not easy to use and needed special, technical languages which were not friendly. The use of PCs was deliberately kept unfriendly so that a mystique surrounded PC users and the world at large did not understand them, assuming that they were very clever whiz-kids.

PC challenge

PC companies became aware that the number of Mac addicts was growing. In order to quell the defections from PCs, software known as Windows was written to emulate the Mac environment. Windows was primitive and inept, compared with the Mac but, because of clever marketing, sold in vast quantities and the PC became easier to use. Many companies bought huge PC systems because they were safe and dull and because they didn't want their workers to enjoy computing. They thought that Macs were not serious and that the joy they bring would be detrimental in the workplace. As Windows and PC systems became updated, the upgrade paths were made easy for PC owners and so the PC took the majority share in the market.

Apple Share

Suddenly Apple realised that something had to be done about their share of the market. Applications became voraciously memory hungry; the Mac system was upgraded to 7.5 with GX fonts – also memory hungry; Apple introduced the PowerMac and shelved practically everything else; and now Apple are soon going to phase out current PowerMacs in favour of Moccasin. OpenDoc is to arrive shortly and Copland is yet to come.

To have kept up with Apple in the last year, a Mac addict needs to have spent, scrapped, spent, scrapped and spent, spent, spent – either upgrading System, RAM, ROM, motherboard, daughterboard and so on (thus spending more on the original ordinary Mac than the cost of a high-end PowerMac), or saving up and buying a PowerMac on which hardly any of the old ordinary software and peripherals can be used – and still more RAM is needed! In the latter case, the Mac addict would have learned within a few days of the purchase that the PowerPC 601 CPU is to become redundant – which starts the spending cycle all over again.

When will it stop? It is understood that progress has to be made but when would it be sensible to buy a new Mac? And do Apple really care about the ordinary Mac addict?

Ann Farr
via CIX

So, to speak

Opinions expressed on this page are those of the authors, not necessarily those of MacFormat or Future Publishing Ltd. If you have something to say, write to 'Soapbox', MacFormat, 30 Monmouth Street, Bath BA1 2BW. ASCII text on disk would be nice, but isn't essential. We reserve the right to sub-edit your grammar, but won't alter the sense of any opinions.

It's new. It's sexy. It's about £1,400 – not hugely expensive as multimedia machines go, but a lot to pay to keep up with Apple.

The 5200's less sexy sibling, the 6200, looks just like a Performa 630. I'd stick to the older model and hope no-one notices.

Never mind upgrading – here's what really matters

With the concentration nowadays on power (and cost!) it is well to remember that some of us out here working for large international companies that – shall we say – do not squander money, or replace computers very regularly, are doing sterling work on the likes of old mono Classics and early colour LCs – admittedly onto personal laser writers, at least! – which produce professional looking results that are most acceptable to our customers. So, if any MacFormat readers run their own business, it doesn't mean they have to go right off and buy a PowerMac 8000 series. They might well find the 'humble' Performa can do all they need it to do and cost far less to set it all up (and perhaps as an added bonus, be less attractive to any computer hungry thieves in the neighbourhood?).

However, I am in a dilemma. The Performa 630 packages seem to be out of stock everywhere in the UK. Is there a general shortage of 630s, and if so, how long will it take to remedy? Time is money, after all, in business – and all my clients would much rather see professional output from a Performa than the amateur efforts I have to make do with now.

And lastly, how come no one has moaned about the appalling quality of the mouse as supplied with the Classic and LC series? I have used several Macs of that ilk for work now for about six years, and my estimate is that a Mac mouse lasts for about a year before troubles begin. Even a recommended mouse mat doesn't seem to help matters. Compare that with the cheap and humble mice I have used on older machines such as Ataris and Amstrad PCWs – they never went wrong as quickly, and some of them weren't even used with mouse pads, but straight onto wooden desks which would gum up a Mac mouse in no time. Is this due to their inherent design? Are there any Mac-compatible mice out there that could do the job better and last longer?

Alex Lewis
Owestry, Shropshire

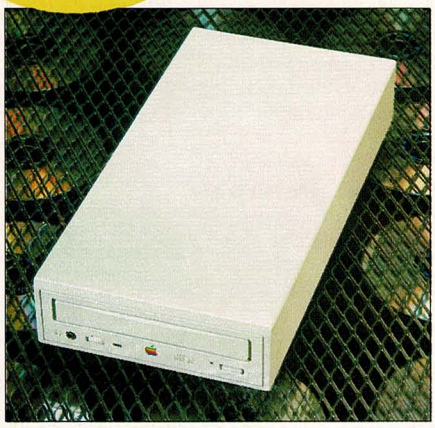
MACFORMAT OFFERS

MACFORMAT offers you the best Mac products at the best prices. All prices include VAT and delivery! Order now by mail or phone 01225 822511.

NOW ONLY £189 plus VAT and delivery

Apple CD300E Plus and Cinemania '95

Join the multimedia revolution with this top hardware plus software deal – Apple's own double-speed CD-ROM drive, plus the brand new *Cinemania '95* at no extra cost! The CD300E is a caddyless double-speed drive capable of playing PhotoCDs and audio CDs as well as CD-ROMs. *Cinemania '95* is the latest edition of Microsoft's definitive multimedia reference guide to films.



Apple CD300E Plus, with Cinemania '95
Price: £230.29 including VAT and delivery
Order code: MFCD300

CD Storage Box

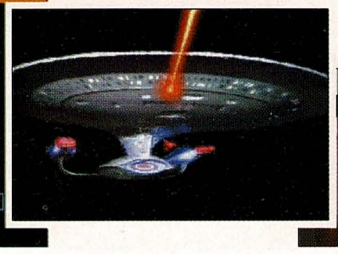
Protect your MACFORMAT CD-ROM cover discs from getting damaged and tidy up your work area at the same time with the ultra-trendy MACFORMAT approved CD storage case! Go on, put a roof over the heads of your discs, you know they deserve it!

CD Storage Box
Price: £24.95
Order code: MFCDSB

ClarisWorks, Excel, Word and FileMaker help

Want more than the manual? These handy Black Mouse guides include pages of practical advice and worked examples to help you get the most from your software. Titles cover *ClarisWorks, Excel 4, Claris FileMaker Pro* and *Word 5*. Now *half* original RRP!

ClarisWorks book
Price: £5
Order code: MFCWKB
FileMaker Pro book
Price: £5
Order code: MFFMPB
Microsoft Word book
Price: £5
Order code: MFWD5B
Microsoft Excel book
Price: £5
Order code: MFEXLB
SOLD OUT!



Boldly tour the USS Enterprise (MACFORMAT 20: 92%)

A must for techies and Next Generation Trekkers everywhere. A beautiful QuickTime VR video-clip tour of the Enterprise, narrated by William T Riker (Jonathan Frakes). Investigate the bridge, crew's quarters, transporter room – or view the outside of the ship from space! Schematic diagrams and text give masses of information on all the fictional technology you encounter. An excellent and innovative CD-ROM that brims over with fresh ideas.

Star Trek Interactive Technical Manual
Price: £39.95
Order code: MFSTART

MACFORMAT Tornado Fax Modem Offer

Sad? Lonely? Bored? Your Mac could be your passport to popularity and social acceptability – if only you had a modem as well! You could communicate with Bulletin Boards, send and receive e-mail, join discussion groups, download all the latest shareware, even surf the Internet. With a fax-modem you can send faxes direct from your Mac and receive them straight on your Desktop.

The Tornado fax-modems from Electronic Frontier are sturdily built, with metal cases rather than the fragile plastic you commonly find. They are both super-efficent, super-fast, BABT approved modems and are fully Hayes (industry-standard) compatible. They have auto-dial and auto-answer, plus data compression built-in. They come complete with all the cables you need, plus *Delrina Fax Lite* software. And best of all, we can offer them at very affordable prices!

ONLY £92.00 plus VAT and delivery

14400 Fax Modem

The Tornado 14400 modem is an excellent fax modem at a bargain price. V.32bis connection speeds, plus V.42bis compression and error correction ensure efficient data transfer whether you are using it as a data modem or as a fax modem. It features a comprehensive nine-LED front panel status display, with auto-dial, auto-answer built-in. It is easy to set up and simple to operate.

Tornado 14400 Fax Modem
Price: £116.32
Order code: MF144E

ONLY £159.00 plus VAT and delivery

28800 Fax Modem

The Tornado 28800 incorporates all the features of the 14400, including its ease of set-up and operation, but is capable of much faster data transmission speeds. The 28800 version offers full V.34 compatibility and data transfer speeds up to 28,800 bp, combined with V.42bis data compression that shrinks the data before sending it to save your time and money.

If it's power you're after then the 28800 is the fax modem is for you. It's available at the affordable price of under £200 – including VAT and delivery.

Tornado 28800 Fax Modem
Price: £195.04
Order code: MF288E

Internet Starter Kit

This is the second edition of this indispensable guide to everything you need to know about using the 'Net. The book comes complete with The Internet Starter Kit disk, which is packed full of useful software. Inside you'll find practical guidance on how to get the most from the 'Net without going bankrupt, and where to look for all the latest info.

Internet Starter Kit
second edition
Price: £27.50
Order code: MFISKIT

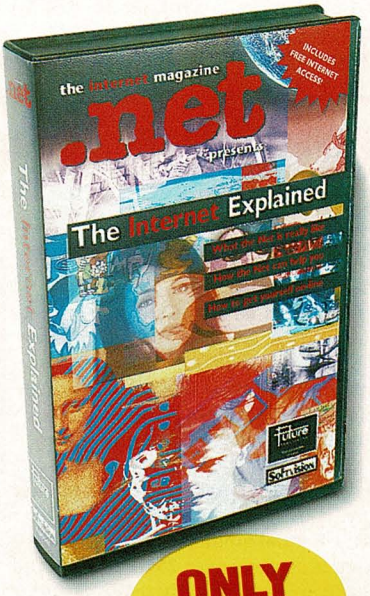
The Internet Explained Video

You've read about the Internet, now discover what the Net is really like with this *new* video. The experts from MACFORMAT's sister magazine *.net: the Internet Magazine* explain how to get your computer on to the Net and what's out there when you get on-line. Everything is explained clearly and easily, including:

- What the Internet is
- How it can be used
- What's out there, and how to get at it
- What hardware you need to get connected
- How to choose a service provider
- and much more

It's almost like having an expert by your side as you learn and explore – soon you'll be impressing your friends down the pub yourself! (Or boring them senseless...)

Produced in Association with Softvision
The Internet Explained video
Price: £19.95
Order code: FLV9501



ONLY £19.95

ALL PRICES INCLUDE VAT & DELIVERY – NO HIDDEN EXTRAS
ORDER NOW! CALL THE HOTLINE ON 01225 822511

Treasure Hunt

(MACFORMAT 20: 90%)
A great multimedia title for kids. A group of pirates – who are also mice – set out in their ship to find treasure. They wander around a treasure island, with some gorgeously illustrated clues, until they find it. The pictures animate and there's music too. A unique feature is the bedtime story mode: the CD-ROM repeats itself at ever-decreasing volumes until your child falls asleep...

Treasure Hunt
Price: £28.99
Order code: MACHUNT

MACFORMAT Back Issues Collection incomplete?

ISSUE 9
February 1994
- **On the disk:** *SimCity 2000 demo; Greg's Browser; Bobzilla* XTension; *QuarkXPress 3.2* patcher
- **Inside:** Bumper games guide: *SimCity 2000, Populous, Myst* and more; *FreeHand 4* reviewed; tips for keeping your Mac safe; *Interactive Lover's Guide*; plus language tuition software

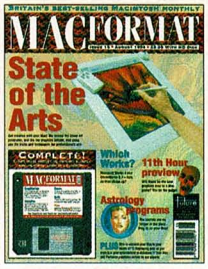
Order code:
HD Disk MFHD09

ISSUE 10
March 1994
- **On the disk:** Over 30 indispensable True Type fonts; *Apollo* and *Disinfectant 3.3; ShutDownFade*
- **Inside:** Integrated packages head-to-head; tips and tricks on graphics; *Creative Writer* review; *FA/18 Strike Hornet* review; Editing for DTP; plus Canon BJC-600 printer on test

Order code:
HD Disk MFHD10

ISSUE 14
July 1994
- **On the disks:** *Populous 2* demo; *HyperStudio; Disinfectant 3.5; Photina*
- **On the CD-ROM:** sorry, CD-ROM edition is no longer available
- **Inside:** Multimedia special – how to join the CD-ROM revolution; Natural Media techniques; reviews of *7th Guest* and *Flying Nightmares*

Order code:
HD Disk MFHD14



ISSUE 15
August 1994
- **On the disk:** *GrayStation; Vistapro* demo; *Quill*
- **On the CD-ROM:** sorry, CD-ROM edition is no longer available
- **Inside:** Art on the Mac, including reviews of *Dabbler, Fine Artist* – and the Wacom, CalComp and Summagraphics tablets; reviews of *Vistapro* and *ClarisWorks 2.1*

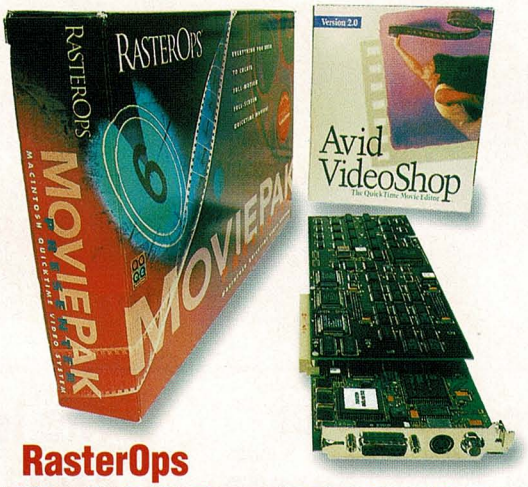
Order code:
HD Disk MFHD15

KPT Bryce SAVE over £35 on RRP (MACFORMAT 20: 91%)

Produce incredible landscapes on your Mac with *KPT Bryce*. You have complete control over the shape and form of your terrain. Clouds obey your every mouse-click and a storm can be conjured up in seconds. Journey into space; visit unknown planets and their mysterious moons.

Once you've started to use *Bryce* you'll be unable to stop creating wonderful graphics. Reviewed in MACFORMAT 20, *KPT Bryce* scored 91%. It requires an LCII or better, 4Mb of free RAM, and System 7 or later.

KPT Bryce Price: £115.00 Order code: MFKPT



RasterOps MoviePak Presenter bundle Special purchase – save nearly £1,000!

Includes *VideoShop* – worth up to £350

MoviePak Presenter is a complete, ready-to-install video record/edit/playback package, with all the hardware and software you need to digitise video images, compress them, edit them and play them back. Its modular design means you can add upgrades from RasterOps as your needs grow.

The bundle includes two plug-in cards that give you 640 x 480 (NTSC) or 384 x 288 (PAL) resolution, hardware pan and zoom, S-Video and Composite input, RGB output to an optional Video Expander, JPEG compression from 2:1 to 100:1, 30 fields per second (NTSC) or 25 fps (PAL) capture and 60fps playback. Also included is RasterOps' own software for capture and playback, Plug-ins for *Photoshop* and *VideoShop*, plus *Avid VideoShop 2*, the comprehensive video editing software suite. Requires: Mac II or later, one 14-inch NuBus slot, at least 8Mb RAM, 80Mb hard disk, System 7, 13-inch colour monitor. This bundle is normally £1,995, but with this exclusive offer you buy at *half price*!

RasterOps MoviePak Presenter bundle
Price: £999.00
Order code: MFROPS

Exclusive

Vistapro with FREE Distant Suns

Vistapro is a virtual landscaping package and MACFORMAT Classic to boot! We gave it the thumbs up in issue 15, with a well-deserved 90%. It enables you to create your own three-dimensional landscapes, for use as backgrounds or simply for the sheer joy of it. Requires: a colour Mac running System 7, with at least 4Mb of free RAM.

Together with *Vistapro*, we're able to offer you a *free* copy of the multimedia title *Distant Suns*. An essential guide for the desktop astronomer, it displays over 255,000 stars and 2,000 galaxies and normally retails at £39.95.

Vista Pro and Distant Suns bundle

CD version
Price: £79.95
Order code: MFVPCD

HD disk version
Price: £69.95
Order code: MFVPHD

ALL PRICES INCLUDE VAT & DELIVERY – NO HIDDEN EXTRAS
ORDER NOW! CALL THE HOTLINE ON 01225 822511

Don't panic! Back issues cost £5.00 each including postage and packing.

ISSUE 16

September 1994

■ **On the disk:** *ColorStation 2* and *HomePublisher* demos
■ **On the CD-ROM:** sorry, CD-ROM edition is no longer available
■ **Inside:** Our guide to weird Mac software; plus reviews of *Multimedia Workshop, HomePublisher* and *Return to Zork*; plus a foreign correspondent's Mac story

Order code:
HD Disk MFHD16

ISSUE 17

October 1994

■ **On the disk:** *Crunch 2.0* and *Conflict Catcher* demo
■ **On the CD-ROM:** sorry, CD-ROM edition is no longer available
■ **Inside:** Discover how to future-proof your Mac with our top add-ons; reviews of *Sensory Overload, Wrath of the Gods* and *WordPerfect 3*; plus *Ritz Payroll*

Order code:
HD Disk MFHD17

ISSUE 18

November 1994

■ **On the disks:** Internet software bundle; troubleshooting utilities
■ **On the CD-ROM:** *ClarisWorks 2.1; Rebel Assault* and *Sensory Overload* demos; 200Mb of utilities
■ **Inside:** How to beat those startup problems; plus *Norton Utilities 3* vs *MacTools 3*; plus review of *ThemePark*

Order codes:
CD-ROM MFCD18
HD Disk MFHD18

ISSUE 19

December 1994

■ **On the disk:** Hot action with *Wolfenstein 3D*; *Kid Pix*
■ **On the CD-ROM:** sorry, CD-ROM edition is no longer available
■ **Inside:** The lowdown on accelerators; the 20 top Mac games; SCSI trouble-shooting; *IntelliTalk*; OCR user guide plus Internet books reviewed

Order code:
HD Disk MFHD19

ISSUE 20

January 1995

■ **On the disk:** Build worlds with *Fractal 1.2; Maniac 2.1.1; RAMDisk+ 3.23*
■ **On the CD-ROM:** sorry, CD-ROM edition is no longer available
■ **Inside:** Virtual reality special: *KPT Bryce* and *Star Trek Tech Manual*; *Word 6* versus *Nisus Writer*; how to write games for your Mac

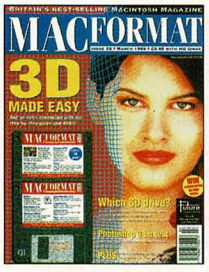
Order code:
HD Disk MFHD20

ISSUE 21

February 1995

■ **On the disks:** *VideoShop 2.0*; plus 3Mb of games and utilities; *Trojka; WordSmith*
■ **On the CD-ROM:** Demos of *Premiere 4.0, Marathon, Ghosts*, and *Star Trek: TNG, Technical Manual*
■ **Inside:** Video editing on Macs: how to do it; plus budget games; and what to buy if you run out of disk space

Order codes:
CD-ROM MFCD21
HD Disk MFHD21



ISSUE 22

March 1995

■ **On the disks:** *Infini-D* demo; *MacConcept; Blobbo*
■ **On the CD-ROM:** 3D spectacular; *The Crystal Rainforest; VideoFusion*
■ **Inside:** How to create 3D images on your Mac; *Photoshop 3.0* reviewed; font problems solved; CD-ROM drives tested; and the most realistic flight sim ever

Order codes:
CD-ROM MFCD22
HD Disk MFHD22

ISSUE 23

April 1995

■ **On the disk:** *Oh-no! More Lemmings; StuffIt Lite 3.5*
■ **On the CD-ROM:** Comics collection; *PAWS; Sources of Faith; Marathon*
■ **Inside:** Comics on the Mac – interviews, reviews and how-to's; *FreeHand* v *Illustrator*; colour printers; reviews of *XRes* and the best Mac game ever, *Marathon*

Order codes:
CD-ROM MFCD23
HD Disk MFHD23

ISSUE 24

May 1995

■ **On the disk:** *Graphic Converter; MacCheckers!*
■ **On the CD-ROM:** Demos of five top DTP programs, including *QuarkXPress* and *PageMaker*, plus *Photoshop 3.0* and *Claris Works 3.0*
■ **Inside:** Every Mac DTP package reviewed and rated; Colour scanners; networks explained; *PhotoFix* reviewed

Order codes:
CD-ROM MFCD24
HD Disk MFHD24

ISSUE 25

June 1995

■ **On the disk:** *Knot 1; MacSnails; Glypha III*
■ **On the CD-ROM:** Get started with MIDI; plus Demos of *Alone in the Dark, Wing Commander, Loony Labyrinth, A-10 Attack.*
■ **Inside:** All you need to know about PowerMacs, Fax-modems tested; plus some 'Cosmic' CD-Roms

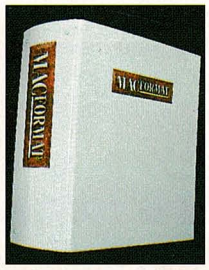
Order codes:
CD-ROM MFCD25
HD Disk MFHD25

ISSUE 26

July 1995

■ **On the disk:** Animation programs, *Disinfectant 3.6.*
■ **On the CD-ROM:** Animation demos of *ProMotion, Amazing Animation, Elastic Reality, Morph and Circus* Plus *3D Dinosaur Adventure.*
■ **Inside:** Animation on the Mac; 15- and 17- inch Monitors reviewed; Comms made easy with *TeleFinder*

Order codes:
CD-ROM MFCD26
HD Disk MFHD26



MF BINDER

If you're a regular reader, you'll now have two years worth of MACFORMATS piled high on your book shelf, so to keep them tidy and in tip-top condition, why not store them in a specially designed MACFORMAT binder? Adorned with the MACFORMAT logo, the binder will keep your issues in perfect nick and give your bookshelves a treat

Binder
Price: £6.50
Order code: MFBIND

SPECIAL OFFER

Receive a FREE MACFORMAT binder worth £6.50 when you buy any five back issues. Order now!

PRIORITY ORDER FORM

Description	Order code	Quantity	Price
		TOTAL £	

Method of payment

☐ Visa ☐ Access ☐ Cheque

Card no. ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Expiry date.....

Signed.....Date.....

Please make cheques payable to **Future Publishing Ltd** and return with this form to the Freepost address below

Title .....Initials .....Surname.....

Address .....

.....

.....

Postcode .....Daytime tel. no.....

EEC customers registered for VAT must quote their registration number when ordering

VAT number.....

Overseas orders: Please phone for delivery charges

☐ Tick if you don't want to receive details of other special offers.

Your order will be actioned immediately but please allow 28 days for delivery.

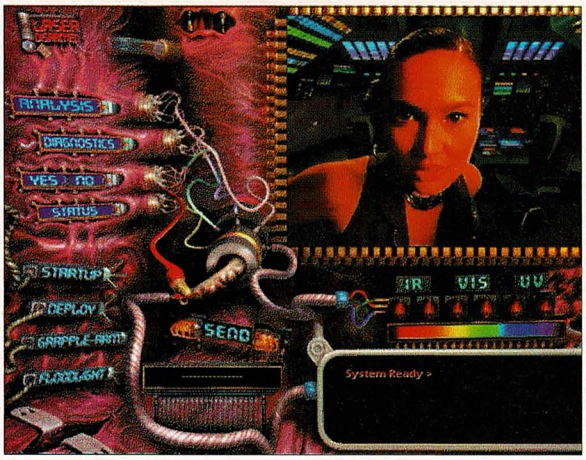
MACFORMAT Reader Offers, Future Publishing Ltd, FREEPOST (BS4900), Somerton, Somerset TA11 6BR

(No stamp required if you are posting from within the UK.)

The Daedalus Encounter

While Hollywood star Tia Carrere ventures into new territory with this interactive sci fi movie, Garrick Webster attempts to exorcise his obsession...

Daedalus, if you remember, was a mythical Greek fellow who managed to fly using a pair of wings made of wax and feathers. His son Icarus, however, got so carried away with this flying lark (no pun intended),



The main playing interface. From here you can turn on light beams, activate a grappling arm and perform analyses and diagnostic tests.

that he flew right up to the sun. Predictably, his wings melted in the heat, and... splat! Sure enough, it's not long into the *The Daedalus Encounter* before you hear the words 'hurtling straight for the sun's corona' to justify the mythological allusion.

But speaking of hot stuff, there's no hotter property in Hollywood at the moment than Tia Carrere, starlette of *Wayne's World, True Lies* and, yep, you guessed it, *The Daedalus Encounter*. Why she chose to go into interactive movies after kicking off such a promising big screen career boggles the mind.

Tia plays the role of Ari, commander of a decommissioned space fighter. War between the humans and the Vakkar is over, and for want of something better to do, Ari and her co-pilot, Zak, forgettably played by some ham-acting nobody, decide to go scavenging the space wreckage left over from the war.

Then there's you. No, you don't get to be Arnie, Sly or Bruce Willis. You don't even get to be Bruce Forsythe. Instead of being a real character, you play the role of Casey, who is basically a brain in a box. Whatever sex Casey was before the last wave of Vakkars attacked Ari's ship it doesn't matter now, because you're reduced to life in a cerebral support mechanism with about as much chance of pulling Tia as you'd have of making wings from wax and feathers and flying to the sun.

Meltdown with Tia

Back to the story. Your career as the cyborg sidekick to a couple of ex-fighter corps treasure hunters takes a bizarre twist when the three of you happen upon an enormous unidentified alien ship. Actually, you end up colliding with it and after you've restored life support systems to your ship, it's time to investigate this million megaton abandoned hulk which, you guessed it, also happens to be on a collision course for a binary star system. The interactive movie progresses from there as you explore the ship and try to figure out what happened to its crew of dead aliens.

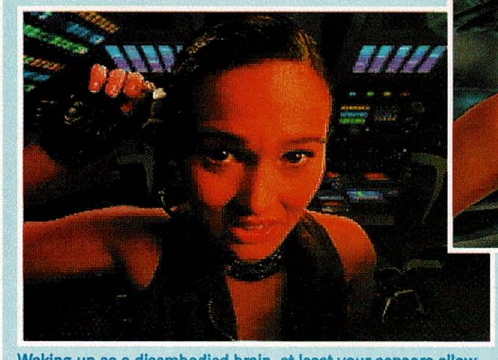
The most outstanding feature of *The Daedalus Encounter* (after Tia, of course) is its gargantuan video sequences, which really are awesome. The fact that it's not much of a game aside, *The Daedalus Encounter* has some of the most breathtaking graphics you're likely to get in a Mac product. The two characters, Aria and Zak, are superimposed onto rendered environments, and you actually catch yourself believing that they are in the halls of some great alien ship where blobby outcroppings are the engine controls and the doors are made of a gloopy pink substance which can turn from liquid to solid instantaneously.

If you like, you can even watch the video clips at full screen size, and as video goes, this is some of the best you'll see playing from a CD-ROM. It looks okay in 256 colours, but if your Mac has the capability, thousands of colours mode is definitely recommended. Then it looks great.

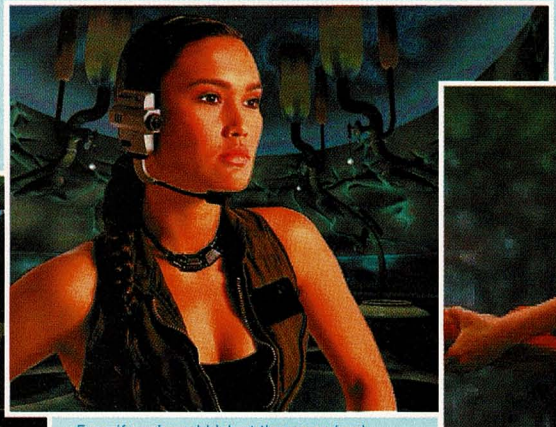
In fact, the graphics are so good, you might eventually even get awe-fatigue and begin to revolt against the whole idea. When this happens, the

THE ULTIMATE BABE GOES TO SPACE...

Fancy graphics, a weird alien setting, spacey sci-fi themes, they're all in there. But the real reason most people are interested in *The Daedalus Encounter* is simple: Tia Carrere. This is a special MACFORMAT tribute to her, and here she is in action.



Waking up as a disembodied brain, at least your sensors allow you to perceive a sympathetic Tia Carrere. Schwing!



Even if you're rubbish at the game (and even if the game's rubbish), at least you can marvel at the high resolution photos of Tia in the gallery section of *The Daedalus Encounter*.

In the depths of the unidentified spaceship, Zak and Ari are attacked by Krin, a vicious variety of space piranhas. Tia (as Ari) fends them off with a big, pink bone-shaped weapon. Steady, Tia, where did that come from?

PUZZLED?

Here are a few of the challenges set for you in your role as disembodied brain. While they're almost as eye-catching as the rest of *The Daedalus Encounter*, they're not overly demanding. But in case you do get stuck...

This one's odd but easy. Click the orbs and the colours change. Match the colours and win a prize. Come on up...

Hexagonal door lock codes seem to be a favourite of the aliens that built – or, more accurately, excreted – this ship. Easy peasy.

The planet puzzle is harder, mainly because what you're expected to do is never clear. Not a good one.

illusion that *The Daedalus Encounter* is anything special in gaming terms melts away faster than a waxy feather on the surface of the sun.

For a start, you don't really get to do very much. From the little console inside your brain box, you can shoot beams of light in various colours (which are amazingly effective at unlocking alien doors), run analyses and diagnostic checks on electronic systems, and digitally decode alien languages. Mainly, your job is to solve the puzzle locks that keep the doors locked on this mysterious alien ship. Although *The Daedalus Encounter* takes up three CD-ROM discs, I found the puzzles so easy that I'd finished the first disc in about two-and-a-half hours and after five hours I was pretty close to starting the third. In gaming terms that's not good value for money.

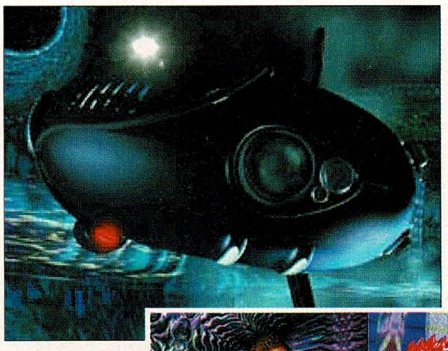
Most of the puzzles (mainly colour coding logic games) aren't tricky. With each puzzle you solve, you get to see another fantastical video sequence. There are a few action bits where, in a limited way, you can fire your laser beam, but you can be assured of a pretty passive experience overall.

Even if you can accept the fact that you have to sit back and watch for long periods, chances are you'll find most of the dialogue a real turn off.

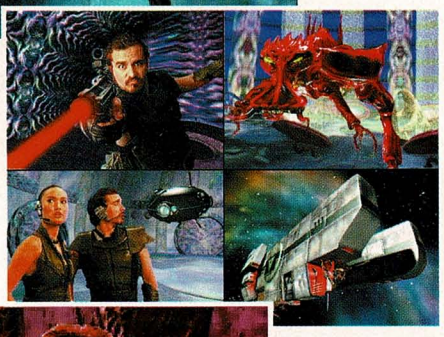
For a start, it's riddled with clichés and vacuous tit-for-tat arguments between Zak and Ari. Occasionally, their dialogue gives away bits and pieces on how this weird universe you're in works and just what's going on in it, but often you'll find yourself wishing they'd just put a sock in it. Nevertheless, with the help of some amazing views, it does manage to be entertaining enough to keep you going all the way through – but only just.

The weakness of the story compared to your average sci-fi film or book is a bit of a shame, really. Good dialogue would have helped the movie narrative a lot. Its writers were appallingly mistaken when they took the cheap humour route, because alongside such splendiferous graphics a decent storyline could have made *The Daedalus Encounter* a much more interesting and intellectually enticing game.

Instead, you get a cerebral support mechanism, a chain of bad gags, and no gameplay to speak of. Okay, it does have great graphics and special effects, and it does star a real Hollywood actress who happens to be beautiful as well, but for this money you can get all Tia's movies on video, a stack of Arthur C Clarke novels and a genuine pair of heatproofed Greek-style wax and feather wings to boot. **MF**



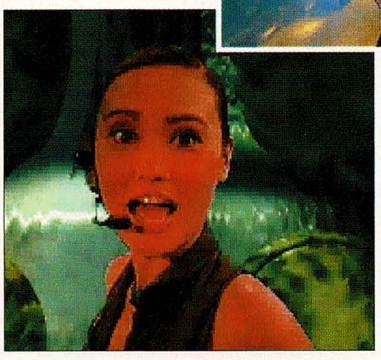
You're in control of this probe, which flies around with Zak and Ari and solves door code puzzles for them. Great role!



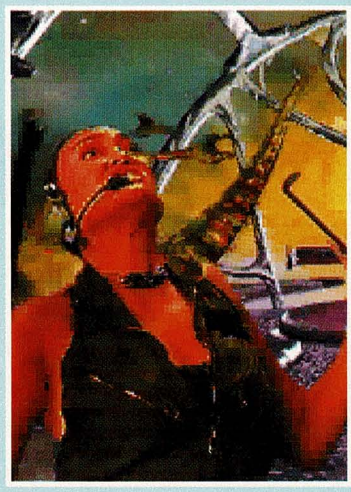
Fancy rendering, quite literally, is the name of the game in *The Daedalus Encounter*. The gallery section lets you view pretty pictures.

If Tia Carrere is a good reason to buy the game, this guy is a good reason not to. Zak is her macho sidekick. Take this man seriously. Not.

Whenever you fail to solve a puzzle you get to see the alien ship break apart and fall away to the surface of the local star.



Trust Tia to have a cheeky riposte whenever Zak has some moronic comment to make. Here we captured her in full flow. Saucy girl!



If you cannot kill the Krin with your laser quickly enough, Tia gets her lovely throat torn out. Do not let this happen.

THE DAEDALUS ENCOUNTER

Price: £49.99. Out: now
Requires: a Quadra or better, 256 colours minimum, 8Mb RAM, 4Mb free on hard drive, double speed CD-ROM drive (quad speed for PowerPCs), System 7 or better.
For more details contact Virgin Interactive Entertainment on 0181 960 2255.

GRAPHICS 95%

Wow. They're awesome and the video's great. Plus Tia, of course.

SOUND 85%

Atmospheric spacey stuff and good music. Shame about the script.

GAMEPLAY 30%

Put your brain on auto and put your feet up.

MACFORMAT RATING 64%

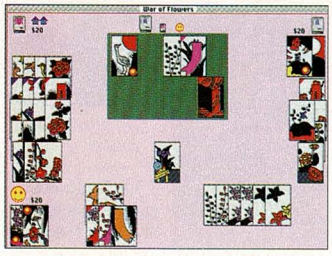
Top 50 Mac Games

So you still haven't got round to playing those classic shareware games? Then try these two spanking new compilations, tried and tested by Marcus Hawkins.

At this stage in Macintosh software evolution (or should that be 'revolution', in light of the imminent release of the Pippin?), it would surely seem financial madness to unleash a catalogue of older shareware titles, a rather healthy proportion of which are readily available if you're prepared to hunt them out. But that's precisely what US Dreams have now gone and done.

These two compilation CDs will cost you £14.99 each. Your immediate reaction, in these heady days of £40 and upwards per regular game, may well be one of expectation. With 50 games on each CD, surely there must be at least one game in there you're going to get £15 of pleasure from? You'd think these CDs must be good value for money. But are they?

Well, both collections are of a similar standard as far as content is concerned. Each one features a healthy variety of mind-numbing brain games (both arcade-style and the more traditional puzzle variety) and shoot-'em-ups (*Space Invaders*, *Asteroid* clones and the like), plus a peppering of sims, role playing games, card games and arcade action. And, not surprisingly, there's a mixture of decidedly dodgy titles, some distinctly average ones, and a reasonable number of those intensely playable, irritatingly addictive classics.



War of Flowers is an Oriental card game which can be played with up to four players (you basically have to match the other cards). But it does require Colour QuickDraw.

As soon as you get past the distinctly tacky Boris Vallejo cover to gaze over the huge list of games, titles will be leaping out at you (for conflicting reasons). The following games are in volume one's favour:

- *Bolo*, the multi-player networked tank battle game, where gloriously abusive messages can be relayed to each other on-screen.
- *Maelstrom* – anyone for a game of rendered *Asteroids*?
- *Sammy the Eel*, a simple but satisfying game where you eat the things on screen, while avoiding your ever-lengthening tail and listening to some ludicrously over-the-top samples – similar to *Snakebyte*.
- *Arashi* – an addictive version of Atari's classic *Tempest*.

GUNS 'N' STUFF

One of the titles worth having a look at is *Madness* (vol. 2), which allows you to take out your frustration on your Mac, by simply shooting it with a variety of firearms.

On the down side

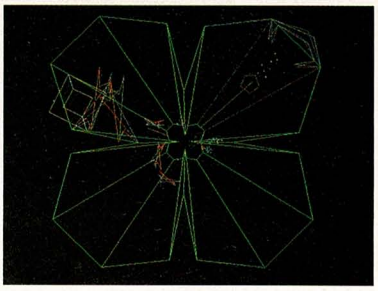
Inevitably, there are some duds. Detracting from the appeal of volume one are these little numbers:

- *Chips and Dips* – a very basic version of *Lode Runner*, where you move a robot, somewhat awkwardly, around a warehouse collecting memory chips.
- *Classic Tennis* – an unnervingly tedious game that's unappealing to look at to boot.
- *Sargo Noidz* – a dull chess-style game where you have to fill in every square by passing over it.
- A blatant and rather appalling version of *Super Mario Brothers* (you only get one life, and it's a horrible little life at that).

On the repetitive side

Moving swiftly on to volume two (and yet another badly-reproduced Vallejo image), there's an even greater selection of wonderful little games:

- In *Bloodsuckers* you spend your time squishing all manner of loathsome bugs that lurk at the bottom of the screen and try to suck the life-giving blood from your arm.
- *Poly-Dol* is a classic game where you must match the colours on the main board to a smaller image, simply by sliding each row.
- *Odyssey* is a hellishly playable fantasy RPG – pity about the visuals, though.
- In a similar vein to *Myst*, *Evocation Interactive* is a rather involved point-and-click adventure.
- On the other, and rather less fortunate, hand, there's *Tekna Slots* – a one-arm bandit game which allows you to take bets on the outcome.
- *Boogers* is effectively a 'catching' game – and yes, it is as unpleasant as its evocative name.
- Thankfully not widely available, *Ninja Boy* is allegedly a beat-'em-up game. It only works when your monitor is switched to 16 colour mode.

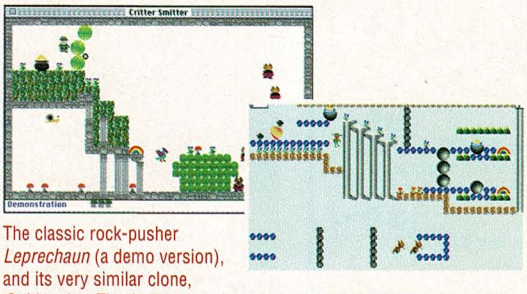


This version of the arcade classic *Tempest*, *Arashi* is eminently playable and as addictive as ever. There's a good choice of area shapes and it's in glorious full screen.

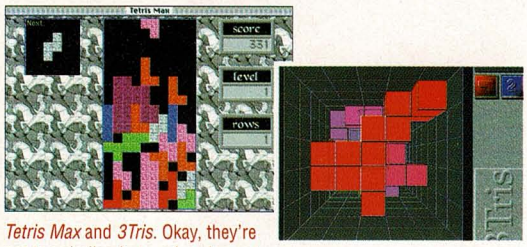
The rather unfortunate element to these collections is the degree of repetition that exists both between them and on the actual CDs themselves. It's taken as given that there'll be versions of *Tetris* and *Columns* in there somewhere, but to bulk out the compilations with several versions of each is rather irritating. The only *Tetris* you'll ever need, *Tetris Max*, is hiding away on volume two, with *S'ydnar Squares* (a more complex version of *Columns*)

LOOKS FAMILIAR...

You could end up feeling a tad ripped off if you're thinking of buying both CDs. Being shareware, the versions of classic games are plentiful, but so many similar games on two CDs..?

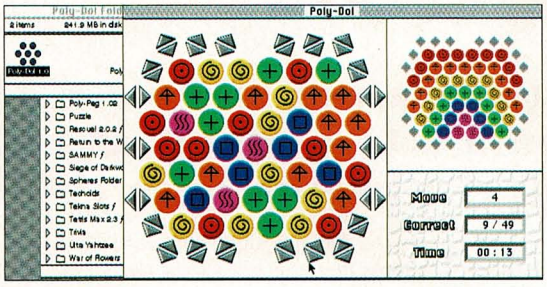


The classic rock-pusher *Leprechaun* (a demo version), and its very similar clone, *Goldpusher*. They're both on the volume two, and although the levels are different, if you didn't like the original, you'll feel a bit ripped off.

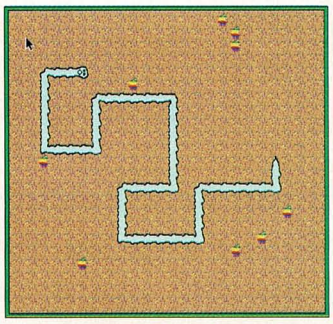


Tetris Max and *3Tris*. Okay, they're not too similar, but you've also got *Pentris* and *Tetris 2000* in there as well. And absolutely everyone has played *Tetris* in some form or other (and probably owns the highly-regarded *Tetris Max* anyway).

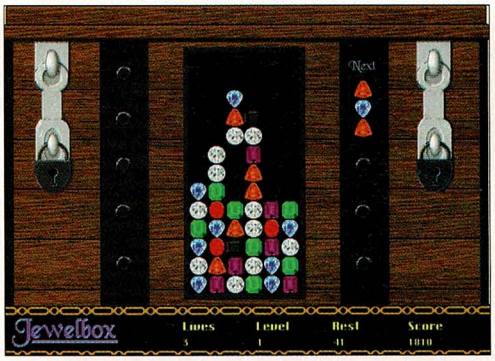
Evocation Interactive can be found on the second volume of US Dreams' *Top 50 Games* and features a lovely interface system (drag anything up to icons on the top menu).



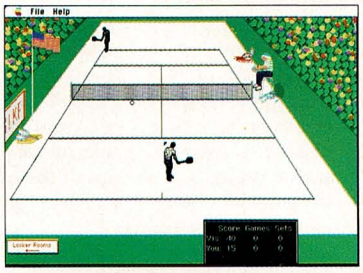
Lovely and colourful *Poly-Dol* may be, but it's irritatingly difficult to put down. Another *Poly* game, *Poly-Peg* (basically a version of Solitaire), can be found on volume two.



Aah, Sammy, how we love your eel-esque tomfoolery. It's just a pity you can't hear the samples (everything from mad laughs to *Ren and Stimpy*).



Jewel Box, on the first collection, is basically a *Columns* clone. As in *Tetris*, you must match the colours to get rid of the rows (the colours can be rotated).



Not quite the *Classic Tennis* you'd expect. It looks a bit raw and it's very slow at first (though it speeds up) and the gameplay is very limited.

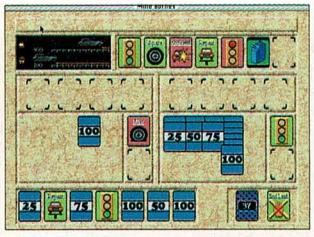
Another variation on the *Shanghai* theme, *Gunshy* (on the first compilation) is certainly eye-catching and pleasantly confusing.

on volume one, but there are five other versions of them spanning the two disks. The same is also true of the myriad of *Asteroid/Galaxian* clones: *Maelstrom, Asterax, Space Junkie, Cheese Toast* (where you have control over an inter-galactic teapot – you'll need Colour QuickDraw to make it run, though). There are a great many shoot-'em-ups with not really that much to distinguish between them in terms of graphics and playability. And playing through the games on volume two, you'll experience an unnerving sensation of déjà vu once you reach the *Leprechaun* demo – three games previous to this there's an identical, albeit graphically inferior, version, *Goldpusher* (push the tiny chap's pot of gold to the rainbow, while avoiding the nasties and pitfalls).

This duplication is carried even further with the game *Sammy* (as mentioned above). It is actually featured on both discs, which indicates that they're perhaps not being aimed at the same purchaser. And, if you examine the styles of game on each disc, you'll spot subtle differences. Volume two, for instance, seems to have a more balanced variety, with a great many titles you'll be itching to get back to (the compulsive *Gaico*, in which you simply have to be the last player to place a domino piece on the board, or *Rescue*, the *Asteroids/Star Control* cross-over). Yes, volume one has the endless pleasures of *Bolo* to offer, but volume two has a more fulfilling combination of two-player/solo software.

Value for money?

The trouble with releasing shareware compilations is that shareware, by definition, will always be available elsewhere. If you have access to the Internet, the only site worth patching into regularly is the massive Imperial College site (see page 117 for further information on this month's shareware). The Umich site here contains just about every game variation you'll need, and many of the games (*Happyweed, Patriot Command, Iraq Attack*) from these CDs can easily be found here. So are these two discs good value for money? Well, there are a number of fairly old games on each (*3D Brick Bash!*, the black-and-white original *Glypha* etc), but there are enough newer and downright classic titles on each to keep you amused. And at £15 for 50-ish games (that's a mere 30p per game), I think there's enough enjoyment contained here to make them pretty good value for your cash, particularly if you've never really bothered to get deep into the shareware scene, or simply don't want to spend the time and effort writing off to the dealers or surfing the Net to try and locate any of the little blighters. There's always the MACFORMAT cover disc, though... **MF**



Mille Bornes is still a mini-classic. You might have come across a more recent version, *1000 Miles*, if you've been surfing the Net in the right places.

These games are definitely on a par in terms of weirdness. The ubiquitous *Happyweed*, with a certain 'herb' trying to evade the campus police officers, and *Return to the Womb*, where you help an egg find the missing womb, while avoiding the mutant sperm.

TOP 50 MAC GAMES

Price: £14.99 each. Out: now.
Requires: any colour Mac, System 6 or later, CD-ROM drive.
For more details contact CD Ltd on 01483 756813

Volume I
MACFORMAT RATING **68%**

Volume II
MACFORMAT RATING **73%**

NET ACCESS

You can obtain a large portion of the games on these CDs by accessing the Imperial College archive site on the Internet: (fftp://src.doc.ic.ac.uk/packages/mac). Try using *Netscape* – it's a labyrinth otherwise.

Flashback

If you were holding out for a hero, you'd expect a Mad Max or Captain America, not Conrad Hart, an animated smoothie who doesn't even know what planet he's on.

Conrad is taken by surprise as a monster squelches up from the ground and chins him.

In the never ending quest to find the Holy Grail of the games industry, software houses are hellbent on creating full motion video games in order to produce those so-called interactive movies.

But the developers that insist on inflicting the likes of *Quantum Gate* and *The Daedulus Encounter* on us should take a look at what French software house Delphine have done with *Flashback*. There's not a smidgen of FMV in sight, it comes on five floppy disks, it takes up a mere 7Mb of hard disk space, and it feels more like a movie than any of those video-packed travesties could ever hope to.

No-one's going to stop you finding out why you're on this strange planet, not least some hairy Neanderthal.

What Delphine have done is to try to make a game feel more like a movie, rather than make a movie feel more like a game – a subtle difference perhaps, but in *Flashback* it soon becomes obvious that not only is there a great depth of gameplay, but the action adventure is wonderfully paced and directed. A whole range of movie techniques are used to heighten the film-like atmosphere, from lengthy flashbacks to swift cut-scenes that interrupt the usual side-on view to show animated close-ups of the action.

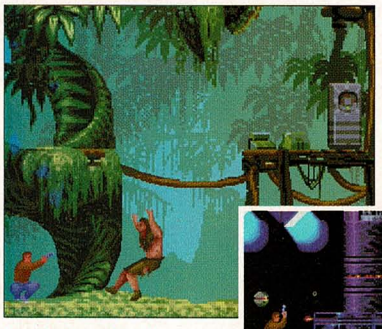
Hostile Aliens

The first few minutes of the game ably illustrate what you're letting yourself in for. A smoothly animated sequence shows the hero, Conrad Hart, fleeing from a bunch of hostile aliens, leaping aboard a hoverbike and escaping only to crash in the jungle. A glance at the screenshots on this page might lead you to dismiss the graphics out of hand because they're not a patch on the 3D rendered intros you see in most games, but the animation is of such quality and the direction so skilful that you're instantly sucked into the game's scenario.

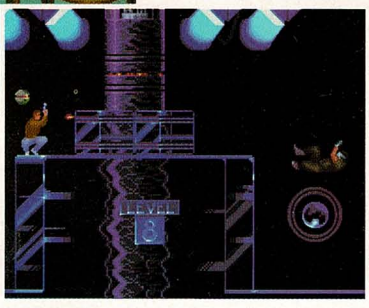
The high-quality animation isn't restricted to the intro, it's present throughout this run, jump, roll, duck and shoot things adventure. *Flashback* is a subtle blend of action and puzzle solving, with large, sprawling levels presenting you with numerous physical and mental challenges. When you've stopped marvelling at the deliciously smooth movement of Conrad and his omnipresent foes, you can get down to the serious business of finding out what you're doing on this alien planet. The game is not called *Flashback* for nothing you know: in true movie style, you find out more about the plot as you progress through the game, and it's not till the later levels that you finally realise how you came to be there.

Flashback is a finely balanced game, with just enough of each gameplay element to maintain your interest. There's plenty of shooting for trigger-happy players, loads of puzzles to tax the hard-of-thinking and more than enough delicate inching along corridors and jumping over man traps to keep everyone smiling. It's quite simple really: *Flashback* is an absolute joy to behold and every bit as much a joy to play. And all at a great price too – bliss.

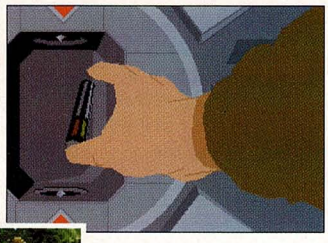
RICHARD LONGHURST



You don't need to take any prisoners in *Flashback*, especially when you've just, in a very real sense, blown them away.



Eat laser death, scumball. That's the last time he'll try to flog you some second-hand Tupperware.



...which you slot inside and the cranky machine splutters into life.

Clambering up the shrubbery to the generator and you realise that it's not working. Luckily you've got a battery...

When you walk past an object, you're alerted by a message at the top of the screen. Everything's bound to come in handy, so pick up the stone...

...and throw it over the head of the alien, drop down behind him and shoot him bravely in the back. Nobody said you had to be gallant.

FLASHBACK

Price: £29.99. Out: now.
Requires: System 6.0.7 or later, 256 colour monitor, 1.5Mb of free RAM.
For more details contact US Gold on 0121 625 3366.

GRAPHICS 85%
Deliciously smooth animation.

SOUND 74%
Good but not great.

GAMEPLAY 87%
Non-stop thrills 'n' spills, really.

MACFORMAT RATING 86%

Trading goods is a huge element of the game. This month we're a tad skint, so we're taking it easy.

Legions

Calling all megalomaniacs! There's a big world out there, waiting for you, your Machiavellian tendencies and the long arm of your brand of law to take it over.

Got five minutes to kill? Not good enough. Gone are the days when you could pick up a Mac game whenever you liked for a brief flight of fancy while waiting for a cab. Oh yes, these days you've got to plan a three or four hour stretch of free time before you dare settle down before your monitor and dare to enter some alternate world of digital creation.

Take *Legions*, the latest offering from Mindscape, which fits squarely into the category dubbed 'strategy game': you've got to take over the world, continent by seemingly insignificant continent, and that is most certainly not a job that you can squeeze into the period between the early evening News and *Eastenders*. This game takes time, you have to spend a good few hours just getting to grips with the way the thing works, and, ultimately, it's all the better for it.

The reason why world supremacy takes so long to achieve is down to the fact, plain and simple, that it's a bloody tall order in the first place. It's hard in other words, and getting your strategy right entails constantly refining and tuning it. Different continents are controlled by Kings and their equivalents of differing temperaments, so where full-on aggression may work in Africa, the Far East is a different kettle of the proverbial herring. Just being able to barter effectively can raise people's opinions of you and help you gain their trust.

Blood and guts

Where most turn-based strategy games entail moving your troops to outflank others, arming them with the correct equipment for the terrain and ensuring that the best fighters go in first to kill off the best part of the opposition, *Legions* goes far beyond that. That's not to say that the war gaming element is neglected – if that's your chosen tactic then so be it, and the best of luck – I'm just saying that you're not restricted to this style of play if it's diplomacy and bargaining that turns you on more than the blood and guts.

Planning is the key element: get your thoughts sorted out long in advance and, just as with chess say, there's a good chance that you're going to survive longer than the gung-ho hero with more brawn than brains. But then, there's always the unpredictable element. Many of the antagonists of the piece – the other rulers of kingdoms with whom you are competing – are not as stable as one would prefer, and that means even the best planned strategies are forced to undergo a massive rethink mid-turn. This is refreshing, certainly, and it keeps you on your chain-mail-clad toes, but it can lead to frustration at times. The alternative is attractive: with multiple copies of *Legions* you can play against friends or colleagues over a network – costly, yes, but certainly more enjoyable because of the more 'human' element of the competition.

Fans of the genre should be wooed by *Legions*, casual dabblers in strategy gaming may find it a little too tough, and the penny arcade minded who can't understand any game that lasts longer than the time it takes to eat a Mars bar should rightly run a mile. There's a depth and complexity to be found in *Legions* that is rarely found, even in strategy games of a similar ilk, so if you've got time on your hands (and I mean lots of it), then give it a go. You won't know where the time went.

PAUL PETTENGALE

MAKE HISTORY

Legions gives you the opportunity to re-enact some of the most famous battles of the ancient world. It has ten historical scenarios including Caesar's conquest of Gaul, the Peloponnesian War, and the rise of Charlemagne.

LEGIONS
Message From: Byzantine Empire
Message Subject: No Response
Your nation is foul and disgusting. I have instructed my merchants to discontinue all trading with your peoples.
Emperor Heraclius
OK

It doesn't help when neighbouring forces tell their troops to cease all negotiations. Everybody needs good neighbours.

After a few months training we send in a warband to wipe out the slime. It's a dirty job but someone's got to do it.

That's us, that is. Given that the Babylonian Empire have stopped trading, and been pretty rude to boot, we've decided that it's time to kick arse.

Training in combat is essential if war is your chosen method of diplomacy. Wiping our other forces early in the game can give you the edge.

Hurrah for that. 1000 kills, no casualties on our part. We're obviously destined to be a war-like nation (or, erm, barbarians).

LEGIONS

Price: £41.11.
Requires: LC or better, System 7.1 or later, 3Mb of free RAM, 256 colour screen, 10Mb hard disk, QuickTime required for music.
For more details contact Mindscape on 01444 246333.

GRAPHICS 69%
Simple, but ideal for this genre.

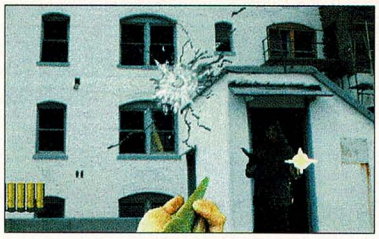
SOUND 65%
Quirky, yet endearing.

GAMEPLAY 80%
Deep, engaging, and lots of it.

MACFORMAT RATING 80%

Blood Bath

With a title as subtle and imaginative as this, can you really expect any quality from the game itself? Our reviewer reloads his automatic rifle and finds out.



The welcome at the Charmont hotel leaves a lot to be desired. 'Can I interest sir in the shotgun?'

Have you seen those police training mock-ups where an armed officer faces the terror of a projection screen? The idea is not only to test their reaction time, but also to expose them to the ultimate question: is that baby packing a grenade or a rattle? *Blood Bath* is similar, although the pendulum of emphasis swings somewhat towards reaction time and fire-power, rather than care and protection of innocent bystanders.

The storyline is set in America, land of the free. Free to own automatic weapons just to hunt rabbits. It revolves around a desperate gang of villains who have escaped from a prison bus and gone on the rampage in the local town. You as the sheriff must take them on single-handedly. Initially, armed with only a hand gun, you arrive at the digitised scene of the crashed bus. The suicidally psychotic villains then pop up from behind the bus, from behind a tree, in fact from just about anywhere. Using the mouse, you aim your gun at the baddy and blast him. There follow howls of pain and splashes of blood, all in the best possible taste.

Dip into the *Bloodbath*, with the demo on this month's CD-ROM.

Clean enough scum off the face of the earth, and you move onto the next screen, and a whole new bunch of psychos. They're slightly faster at the draw than the last lot, but equally suicidal.

It's a lot like *Mad Dog McCree* (reviewed in MACFORMAT 25), with a few critical exceptions. The graphics are fast, smooth, and when you shoot someone, they die. The collision detection is perfect, a difficult feat to achieve. No yells of 'Come off it, I shot you, you're dead!'

The smoothness of the graphics is achieved because instead of the whole screen being a QuickTime movie, the background is a still image, and just the baddies move. Combined with a clever compression technique which Underworld are keeping secret, all the action runs at a very playable speed. It also means that the obliging cannon fodder appear randomly, so you can't 'learn' a scene and play it by memory.

All of this cathartic mind numbing violence is balanced slightly – ever so slightly – by the inclusion of the occasional innocent civilian. They pop up every now and again with arms in the air, and if you overcome the automatic reaction to fill them full of digital lead, you are rewarded with ammo or health bonuses. I found this to be the best aspect of the game, and would have liked to see it expanded, so that you are actually penalised for shooting a civilian rather than just missing a bonus. It would call for much more thought and control and add greatly to the overall tension.

The floppy version contains 14 levels, the CD has 23. The desire to progress to the next level keeps you hooked until you shoot the last baddy and are treated to a suitably gory end. The blood lust then pales, and although I enjoyed my time playing with big guns, there's little incentive to rush back and start all over again. Perhaps when the editor next begins to irritate me.

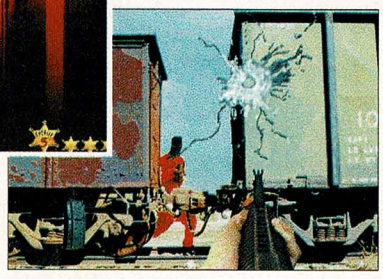
DEREK SMITH

VIRGINS

Blood Bath is Underworld's first game, but surely not their last. They have several other games in progress and are considering a sequel – *Carry on Blood Bath*?

Just when things look sticky, in steps the vicar with his M16 automatic assault rifle. Lucky for me he carries it with him.

This is the last guy in the world that I would like to swing from a chandelier with. Suck Uzi!



If you think British Rail are impolite, wait 'til you see these Americans. So much for the service culture.

BLOOD BATH

Price: $47.95 inc postage. Out: now
Requires: Any colour Mac, 2.3Mb free RAM, System 6.0.7 or later.
For more details contact Underworld Software on 00 1 310 827 2311, fax 00 1 310 827 7079, e-mail **UndrWrld@aol.com**

GRAPHICS 85%
Frighteningly fast and silky smooth, even on an LCII!

SOUND 65%
Some half-hearted grunts.

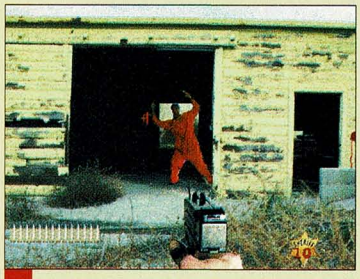
GAMEPLAY 79%
Addictive, but you'll finish the game in a few hours.

MACFORMAT RATING 80%

UNDERWORLD

Currently there is no official British distributor for *Blood Bath*, but the company is happy to take credit card orders directly.

SHOOT FIRST, ASK QUES...



1 Oh look, this man has sensibly decided to surrender...

2 ...Wait a minute – what's that behind his back...?

3 ... Sneaky swine just shot me through the head. Pass the aspirin!

MacGOLD Direct ...better by far!

All our prices include VAT & UK delivery!

OPEN Mon to Sat 9.00 - 6.00 Sun 10.00 - 3.00 7 days a week!

PRICES INCLUDE VAT & DELIVERY

Accessories

Stylewriter I & II Cartridges 19.95
Single Caddy 5.75
5 Caddies 24.95

Utilities

Bannermania 28.95
Conflict Catcher v3 ..... 64.95
Claris Organiser 52.95
Day to Day Calendar 87.95
Expresso 32.95
Info Genie 51.95
MacMoney UK v4 ..... 57.95
Personal Backup 38.95
Popupfolder 36.95
RamDoubler 65.95
SnapMail 5 user 144.95
System 7.5 CD or 3.5" 79.95
Three By Five (Planner) 89.95
Virex 72.95

Comms

Internet Membership Kit CD 39.95
Snatcher (Comms) 41.95
World Wide Web Kit (Mosaic) CD 31.95
World Wide Web Kit (Netscape) CD ... 31.95

Typing Tutors

Mavis Beacon Teaches Typing 2 ..... 31.95
Mario Teaches Typing 33.95

DTP & ClipArt

Corel Gallery CD (10,000 images) 43.95
Animals CD 14.95
Borders and Backgrounds CD 14.95
Business CD 14.95
Fontographer 4.1 ..... 384.95
Home Publisher 51.95
Key Fonts Pro CD 34.95
Key Mega ClipArt CD 34.95
Special Occasions Vol 1 CD 14.95
Thunder 7 Spell & Thesaurus 56.95
Typestyler 121.95
Type Twister 28.95

Screen Savers

After Dark v3 ..... 29.95
Beavis and Butthead CD* 25.95
Complete After Dark Collection CD 33.95
Disney 33.95
Loony Tunes CD or 3.5" 29.95
Star Trek Original Series 29.95
Star Trek Next Generation Series 29.95
Star Trek Screen Posters 11.95
Star Wars Animated 24.95
X-Men 11.95

Reference

Compton's Encyclopaedia '95 ..... 49.95
Encarta '95 CD – Microsoft 83.95
Groliers Encyclopaedia 1995 (unboxed) CD 49.95
Groliers Encyclopaedia 1995 (boxed) CD 79.95
New Dictionary of the Living World CD ... 35.95
Oxford Business Shelf CD or 3.5" 39.95
Oxford Concise OED 3.5" 52.95
Concise OED & Thesaurus Bundle 74.95
Oxford OED 2nd edition CD 494.95
Oxford Language Shelf CD or 3.5" 39.95
Oxford Reference Shelf CD 74.95
Oxford Science Shelf CD or 3.5" 39.95
Oxford Thesaurus 52.95
Oxford Writers' Shelf CD or 3.5" 39.95
PowerCD JFK Assassination Encyc CD ... 27.95
PowerCD Crime Collection Bundle (6 CDs) ... 46.95
PowerCD History Through Art 800BC-AD1550 ... 46.95
PowerCD History Through Art AD1545-1900 ... 46.95

Music

A Hard Days Night CD (film) 28.95
Bob Dylan Highway 61 Interactive CD ... 43.95
Musical Instruments Microsoft CD 42.95
Prince Interactive CD 44.95
Residents Freak Show CD 34.95
Residents Gingerbreadman CD 33.95
This is Spinal Tap CD 29.95
Xplora 1 CD 29.95

Leisure

A Brief History of Time CD 43.95
Art Gallery CD – Microsoft 42.95
Astrology CD – Time Life NEW 22.95
Cinemania '95 CD – Microsoft 42.95
Daring to Fly 27.95
Dead Sea Scrolls Revealed CD 43.95
Dinosaurs CD – Microsoft 42.95
Ephemeral Films 1930-1960 CD 26.95
Issac Asimov Ultimate Robot CD 44.95
King James Bible CD 25.95
Le Louvre CD ROM 38.95
Manchester United Interactive CD 19.95
Multimedia Cats CD 30.95
Multimedia Dogs CD 30.95
Redshift Astronomy CD 46.95
Space Shuttle CD 19.95
Star Trek TNG Tech Manual CD 31.95
Star Trek: Omnipaedia CD* 49.95
World Cup Soccer Encyclopaedia CD ... 37.95

Learning

(Publishers' suggested ages in brackets)

Edutainment

3D Atlas CD 54.95
The Cat Came Back CD (5-9)* 19.95
Circus Interactive CD (3-7) 32.95
Disney Aladdin Activity Centre CD (5+) ... 31.95
Disney Lion King Storybook CD 36.95
Exploring Ancient Cities 38.95
First Emperor of China CD 41.95
Kids Time Deluxe (3-8) 34.95
Launchpad CD or 3.5" 32.95
Lost Mind of Dr Brain 3 (12+) CD 39.95
PAWS CD 28.95
Sim Town (8-12) CD 37.95
Spelunx (5-12) 28.95
Thinkin' Things (4-8) CD 19.95
Thinkin' Things 2 (6-12) CD 19.95
Treasure Hunt CD (4-9) 31.95
Ultimate Haunted House M'Soft CD (8+) ... 38.95
Widget Workshop (8+) CD* 24.95
Wonderland CD (3-6) 22.95

English

Around the World 80 days CD (5-8) ... 27.95
Bailey's Book House (2-6) CD 19.95
Creative Writer CD or 3.5" (8+) 37.95
English 10 out of 10 (6-16) 24.95
The Jungle Book Reader CD (5-8) 32.95
Kid Works 2 (4-14) CD or 3.5" 29.95
MacBeth CD (Voyager) 36.95
MacMillan Dictionary Children CD (6-12) ... 22.95
Reading Maze (3-7) 34.95
Spell it v3 (6+) 27.95
StoryBook Weaver (all ages) 20.95
Word Attack 3 ..... 27.95
Wordstuff CD (4-9) 19.95

Kids Graphics

Fine Artist CD or 3.5" (8+) 37.95
Flying Colours CD or 3.5" (8+) 30.95
Incredible Colouring Kit (3-7) 23.95
Kid Pix 2 (3-12) 31.95
Kid Pix Fun Pack (3-12) 19.95
Kid Pix Studio CD (3-12) 36.95
Multimedia Workshop CD or disk (10+) ... 49.95

Maths

Counting on Frank (8-12) CD 32.95
Decimal & Fraction Maze (10+) 31.95
First Lessons in Math 14.45
Kids Math (3-8) 34.95
Math Ace Junior CD or 3.5" (4-8) 19.95
Math Blaster Mystery (10+) 27.95
Math Blaster In Search Spot (6-12) CD/3.5" ... 30.95
Math School 12.95
Math Workshop CD (6-12) 34.95
Math 10 out of 10 (6-16) 24.95
Millies Math House (2-6) CD 19.95
Number Maze (5-12) 34.95
The Cruncher (10+) 3.5" or CD 31.95

Science and Nature

3D Dinosaur Adventure 44.95
9 Month Miracle CD 38.95
ADAM The Inside Story CD 39.95
Animals San Diego Zoo v2 CD 33.95
Dangerous Creatures Microsoft CD 42.95
How Your Body Works CD 34.95
Sammy's Science House (2-10) CD 19.95
Science Navigator CD 94.95
Timetable of Science and Innovation CD ... 19.95

Living Books

Arthur's Birthday (6-10) CD 31.95
Arthur's Teacher Trouble (6-10) CD 31.95
Harry & Haunted House (3-8) CD 30.95
Just Grandma & Me (3-8) CD 30.95
Little Monster at School (3-8) CD 31.95
New Kid on the Block (6-12) CD 29.95
Ruffs Bone (3-8) CD 31.95
Tortoise & the Hare (3-8) CD 29.95

Dorling Kindersley

Encyclopaedia of Science CD* 74.95
My First Incredible Amazing Dictionary CD ... 30.95
Stowaway CD 34.95
The Way Things Work CD 49.95
The Ultimate Human Body CD* 49.95

Language

Berlitz Think and Talk French CDs 114.95
Berlitz Think and Talk German CDs ... 114.95
Berlitz Think and Talk Italian CDs 114.95
Ecoutez Bien 10 Interactive French Lessons CD ... 49.95
Ecoutez Bien 10 More French Lessons CD ... 49.95
Ecoutez Bien! (both CDs) 84.95
Learn French Asterix & Son CD 1 ..... 49.95
Learn French Asterix & Son CD 2 ..... 49.95
Learn French Asterix & Son (2CD set) ... 81.95
Learn to Speak French v4 CD 109.95
Learn to Speak Japanese v3 CD 74.95
Learn to Speak Spanish v5 CD 109.95
Pronunciation Tutor CD ROMs – French, German or Spanish ..... each 38.95
Story World (Learn English) CD1 ..... 28.95
Story World (Learn English) CD2 ..... 28.95
Word Torture – French, German, Italian, or Spanish ..... each 39.95

Games

Action Games

Another World 16.95
Astrochase 29.95
Defender 29.95
Deliverance 29.95
Dr Macinto 12.95
Flashback 26.95
Fury of the Furries 27.95
Joust 29.95
Lemmings & More Lemmings 25.95
Lemmings & More Lemmings CD 23.95
Lemmings Xmas '93 &'94 ..... 14.95
Loderunner 28.95
Mad Dog McCree CD 41.95
Marathon 3.5" 42.95
Marathon Enhanced CD 44.95
PegLeg 26.95
Prince of Persia 1 ..... 26.95
Prince of Persia 2 ..... 28.95
Rebel Assault CD 35.95
Robotron 29.95
Sensory Overload 37.95
Space Crazed 12.95
Super Wing Commander CD 46.95
Troubled Souls 34.95
Wolfenstein 3D 28.95

Flight Sims

A-10 Attack 45.95
Chuck Yeager Air Combat 35.95
Daring to Fly CD 27.95
Flight Sim 4 - Microsoft 40.95
Flying Nightmares 23.95
Flying Nightmares CD 29.95
Hellcats Mission Disk 26.95
Out of the Sun CD or 3.5" 24.95
PS1 Mustang 17.95

Strategy Games

10 Intelligent Strategy Games 30.95
A Train Game & Construction Set 17.95
Battlechess Enhanced CD 36.95
Castles 2 Siege & Conquest 28.95
Civilisation 29.95
Ishido NEW 27.95
Mario's Game Gallery 25.95
Mario's Game Gallery CD 31.95
Master of Orion 3.5" 29.95
Master of Orion CD 32.95
Onslaught 44.95
Populous 10.95
Populous 2 ..... 29.95
Powermonger 30.95
Sargon V Chess 17.95
Siege of Darkwood 12.95
Shangai II 17.95
Sim Ant 15.95
Sim City Enhanced CD ROM 37.95
Sim City & Lemmings 28.95
Sim City 2000 ..... 28.95
Sim City 2000 Data Disk 1 ..... 14.95
Sim Classics (Sim Ant, Life & City) 32.95
Sim Earth 15.95
Sim Farm 25.95
Sim Life 13.95
Sim Tower 29.95
Sim Tower CD ROM 37.95
Spaceward Ho 4 ..... 28.95
Syndicate & Populous 35.95
Syndicate 30.95
Theme Park 3.5" 34.95
Theme Park CD 33.95
Triazzle 22.95

Sports Games

Crystal Caliburn Pinball 34.95
King of Solitaire 28.95
Links Pro Golf 32.95
Links Bighorn Course 20.95
Links the Belfry Course NEW 21.95
Links Devil's Island Course NEW 21.95
Links Firestone Course 19.95
Links Pebble Beach Course 20.95
Links Prairie Dunes Course 20.95
Loony Labyrinth Pinball 35.95
PGA Tour Golf 2 ..... 29.95
Tom Landry NFL Deluxe 32.95

All Stock is Brand New

Wargames

ACW Battles Vols. 1,2 & 3each 34.95
Carriers at War II 33.95
Empire Deluxe 29.95
Flight Commander 2 3.5" 31.95
Flight Commander 2 CD 34.95
Harpoon v1.5 Complete Collection CD ... 27.95
Harpoon 2 CD 29.95
Legions 26.95
M4 Sherman Tank sim 36.95
MacArthur's War 38.95
Operation Crusader 34.95
Stalingrad CD or 3.5" 34.95
TacOps 44.95
U Boat 37.95
Warlords 2 ..... 36.95
Wolfpack 24.95
Wolfpack CD 23.95

Adventure Games

7th Guest (unboxed) CD 24.95
AD & D Collectors Edition CD - Pool of Radiance, Curse of the Azure Bonds, Secret of the Silver Blades, Dark Queen of Kryn & Pools of Darkness 39.95
Alone in the Dark 39.95
CHAOS Continuum CD 19.95
Daedalus Encounter (Triple CD) 38.95
Gabriel Knight 30.95
Gadget CD 46.95
Indiana Jones & Fate Atlantis CD 32.95
Indiana Jones & Fate Atlantis 3.5" 29.95
Indiana Jones & Last Crusade 16.95
Jewels of the Oracle CD 43.95
Kings Quest 7 CD 37.95
L Zone CD 41.95
Legend of Kyrandia CD 32.95
Leisuresuit Larry 6 ..... 32.95
MYST CD 36.95
Pirates Gold CD or 3.5" 33.95
Quantum Gate CD 34.95
Re-Elect JFK CD 39.95
Return to Zork CD 32.95
Secret of Monkey Island 1 ..... 16.95
Secret of Monkey Island 2 ..... 32.95
Sherlock Holmes Vol 1 CD 19.95
Sherlock Holmes Vol 3 CD 19.95
Sherlock Holmes Vol 1 & 3 CD 29.95
Star Trek 25th Anniversary 26.95
Star Trek 25th Anniversary CD 28.95
World of Xeen CD (Might & Magic 4 & 5) ... 29.95
Wrath of the Gods CD 26.95
Zork Anthology 14.95

All Stock is Brand New

Game Compilations

CD Pack for the Mac - Maniac Sports, Vette, Wordtris, Chessmaster 3000 & US Atlas ... 39.95
Hellcats, Super Tetris & Spectre CD 27.95
Omar Sharif Bridge, Battlechess B&W, Checkmate & Another World CD 32.95

Bubbling Under

Games due for release soon

Al Unser Jr Racing CD 25.95
Buried in Time CD 36.95
CyberWar CD 41.95
Dark Forces CD (26.6.95) 41.95
Doom II CD 49.95
DiscWorld CD 38.95
Dungeon Master 2 ..... 34.95
Dungeon Master 2 CD ROM 35.95
International Tennis Open CD or 3.5" ... 37.95
F/A 18 Hornet v2 ..... 48.95
Links Pro Golf CD 33.95
Links Course Disk - Riviera 22.95
PGA Tour Golf 3 CD ..... Call
Spectre VR CD or 3.5" 33.95

Books

Games

7th Guest 15.95
Alone in the Dark 11.95
Civilisation Strategy Guide 17.99
Gabriel Knight 10.95
Indiana Jones and the Fate of Atlantis ... 11.95
Indiana Jones and the Last Crusade 11.95
Master of Orion 15.95
Myst 14.95
Populous 1 & 2 ..... 16.95
Prince of Persia 1 & 2 ..... 15.95
Rebel Assault Insiders Guide 14.95
Return to Zork 9.95
Secret of Monkey Island 1 ..... 11.95
Secret of Monkey Island 2 ..... 11.95
Sim City 2000 Strategy Guide 15.95
Sim Tower Strategy Guide 16.95
Worlds of Xeen 15.95

Other

Mac Tips 'n' Tricks 13.95
MacWorld - Illustrator Bible (&CD) 33.95
MacWorld - PageMaker 5 Bible (&3.5") ... 34.95
MacWorld - Photoshop 3 Bible (&CD) ... 36.95
MacWorld - QuarkXpress Bible (&3.5") ... 36.95

Joysticks & GamePads

Flightstick Pro 86.95
Gravis GamePad 35.95
Gravis Mousestick 2 ..... 63.95
QuePad GamePad 37.95
Questick 1 NEW 49.95
Questick II Joystick 65.95
Thrustmaster controllers:
Flight Control System 109.95
Weapon Control System 85.95
Rudder Control System 139.95

1.44Mb DSHD Disks

50 disks & labels 24.95
100 disks & labels 43.95
Mac formatted 50 disks & labels 27.95
Mac Formatted 100 disks & Labels 48.95

Prices INCLUDE 17.5% VAT. C.I. & customers outside the E.C. can deduct VAT from price. Deliveries outside UK incur airmail costs. Check system compatibility before ordering as refunds only given on unopened packages returned within 7 days. A restocking fee will be charged. Defective software replaced with same title.

DELTA · MasterCard · SWITCH · VISA

LOCAL AUTHORITY AND SCHOOL ORDERS ACCEPTED

MAIL ORDER - OVER 600 TITLES AVAILABLE

01723 582 100

FREE DELIVERY - VAT INCLUDED IN PRICES

MacGold Direct, PO Box 63, Scarborough, YO11 3YW

Mon - Sat 9.00am - 6.00pm. Sun 10.00am - 3.00pm Faxline 01723 582100

E. & O. E. All sales subject to our terms & conditions of sale (copy available on request)

LOW, LOW Prices! Send SAE for our full software price list

Zig-Zag

Brain-sucking aliens, sword-flailing Amazons, chainsaw-totin' mercenaries... none of which are to be found in this brain-stretching board game adaptation.

HAWAIIAN?

'Mano e luu iho I ka wai ka huli ana' is, of course, The Shark Dive Quest while 'Hala kahiki ka huli ana' translates as The Pineapple Quest. Unless Quantum have slipped in a rude phrase as a practical joke, that is...

Put that mouse down and drift back to your first childhood. Snakes And Ladders, Cluedo, Scrabble... no cute hedgehogs or plumbers, just innocent board games. Today, such simple delights are consigned to lame quiz shows, stocking filler disappointment and *The Danny Baker Show*. If our first reaction to a word game called *Zig-Zag* is to look for the 'In Your Face, Missus!' slogan and garish shag-pile aliens, what hope can there possibly be for the simple board game in this digital age?

Well, let's hope some. Impressively rendered graphics aren't the be-all and end-all and if the addictive, the compelling and the damn frustrating are your digital turn-on, then *Zig-Zag* is most definitely for you. Ignore the rather dubious 'legend' behind the game (linking the game to ancient Hawaiian tests for their future kings – hmm...), the important thing is *Zig-Zag* plays exactly like the old Mastermind board game. The object is to solve the computer's four, five, six or seven letter secret words and score as many points as possible along the way – 250 points scored for a 'Zag' (right letter, wrong place), 1,000 for a 'Zig' (right letter, right place) and after a combination of logical elimination and guesswork, 3,000 points for the correct word.

You are Jack Lord and this is Hawaii 5-0 for anoraks. Altogether now, da-da-da-da-dah-dah...

The SunQuest – and an accompanying picturesque background shot of Bognor Regis.

Kill Zaggy!

It's pretty basic stuff as you attempt to balance point scoring with eking out correct letters – a process not exactly helped by the fact that your guesses must be actual words rather than random letter combinations. It leads to those familiar 'I'm sure Akjdra is a real word' Scrabble-type scenarios and as the sampled child's voice squeals, 'I'm only 5 and I can spell better' for the umpteenth time, you consider introducing Mr CD-ROM to Mr Rubbish Bin. Instead you simply start another game.

Along with *Classic Zig-Zag* comes *Number Please!*, an uninspiring numerical variation, and a selection of *Zig-Zag Quests*. The objective is to move Zaggy from his starting position on the grid to a finishing point, collecting points along the way with each move consisting of a *Zig-Zag* game. Unfortunately, as the little swine spent most of *Classic Zig-Zag* laughing at your attempts to guess blindingly obvious secret words, the motivation to help him successfully traverse a shark-infested ocean isn't too forthcoming and *Zig-Zag Quests* simply becomes a dressed up version of the original.

Why does this man have a squid on his head? Your guess is as good as mine.

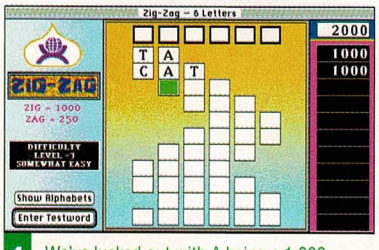
Graphic inspiration?

Quests is the only time *Zig-Zag* utilises any vaguely interesting graphics and minus these variations on a theme, *Zig-Zag* wouldn't be too out of place on a shareware disc. Animations are chunky, sounds are cheesy to say the least (your word play is accompanied by a selection of Hawaiian cocktail muzak) and when a five figure high score loses its first figure for no good reason, you wish the high standards applied to *Zig-Zag*'s packaging had been lent to the game itself. If *Zig-Zag* was shareware, none of these factors would prevent you from continually returning to this addictive game; however, at around the same price as *Marathon*, they should be enough to steer you from the racks of Dixons to the board game section of your local Beatties. For this rather refreshing by-product alone, *Zig-Zag* should be commended.

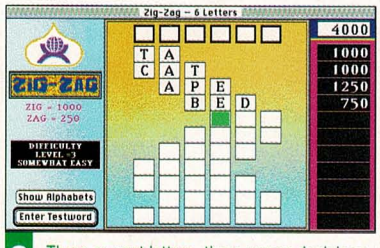
MIKE GOLDSMITH

WORD UP

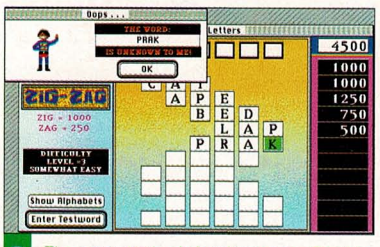
Invented by Joli Quentin Kansil (honest), *Zig-Zag* was originally called *My Word!* when released in 1972 and went on to sell over 100,000 sets. Duly invigorated, our Joli went on to create over thirty more board games. Clever lad.



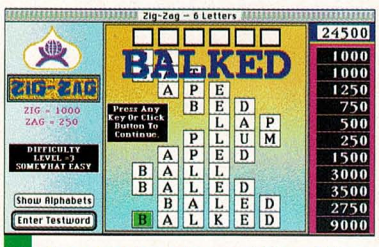
1 We've lucked out with A being a 1,000 points scoring Zig – keep that in as much as possible to rack up some points.



2 Three correct letters, three wrong decisions. As Blind Date's 'Our Graham' says, the choice is yours... (Gulp.)



3 The computer is obviously wrong – 'Prak' is most definitely a word. Well it is in the Klingon dictionary.



4 A couple of inspired guesses later and the correct word racks up 1,000 points a letter plus a 3,000 bonus. Time to move up a level.

ZIG-ZAG

Price: £34.99. Out: now.
Requires: colour or greyscale display (256 colours recommended), 2.5 Mb of free RAM (4Mb recommended), 3Mb hard disk, System 6.0.8 or later, CD-ROM drive.
For more details contact Mirage on 01260 299909.

GRAPHICS 45%
... are hardly the point. Thankfully.

SOUND 35%
Bontempi-a-go-go.

GAMEPLAY 80%
Annoying, exasperating and thus, addictive.

MACFORMAT RATING 61%

We Dare You To Buy Cheaper !

We'll Match or Beat any GENUINE PRICE

SRS systems

Authorised Reseller

THIS MONTHS POWERBOOK SPECIALS

150 4/120 with Free Claris Works & Case £725

THIS MONTHS NEWS FLASH !!! NEW PERFORMAS

5200 8/500CD With Built-in 15" Display £1225
6200 12/500CD + 14" Trinitron + Design Speakers £1295
630 12/500CD DOS Compatiable + Keyboard £1295

630 8/350 'plus' Bundle CD V-in TV 15" £1230
'630 Plus' comes with £300 of free Software

NEW POWER PC RANGE

PLEASE CALL FOR OUR POWER PC RANGE AS OUR PRICES ARE SO LOW IT IS EMBARRASSING TO PRINT THEM

PRINTERS

Apple
StyleWriter II £199

HP
NEW 540c £225

STORAGE

540mb SCSI Internal Hard Drive £165
d2 500mb Designer External Hard Drive £275
d2 88mb Designer SyQuest Drive £245
d2 200mb Designer SyQuest Drive £399
d2 2.4x Speed CD Rom Drive £185

ADD NEW LIFE TO YOUR MACINTOSH

NEW 2.5" Pocket Hard Disk Case £99

Call Our Sales Lines
&
See How Much Money
And Time We Can Save You !

LASERS PRINTERS START FROM £429
SCANNERS START FROM £399

Don't Forget to call about our full range of Service Inc. Networking, ISDN & Software FOR THE BEST DEAL IN TOWN

Phone: 0181 841 1800
Fax: 0181 841 3777

OPENING TIMES ARE
MONDAY TO FRIDAY 9.00AM TO 5.30PM DAILY
SATURDAY. 10.00AM TO 4.00PM

For Educational Software and Hardware Please Call

We accept all major Credit Cards.
All Prices exclude VAT and Delivery and are subject to change without notice. E&O.E.

UNIT 1, BELVUE BUSINESS CENTRE, BELVUE ROAD, NORTHOLT, MIDDLESEX, UB5 5QQ

CARRERA 040 New plug-in 40MHz 68040 accelerator for Mac IIx, IIsi, IIci and IIcx with FPU - faster than a Quadra 650 - only £499 -

SLOTDOUBLER for most 72pin Macs, especially the new 630, 5200, 6200. Double your SIMM slots. ADD to your existing RAM. £80

QUADBOOSTER Double your Centris 610 speed with a 40MHz CPU board. Get 50Mhz 040 performance from other Quadras/Centrises £350

MULTISPEED for SE and Classic. This fast 32MHz 68030 accelerator increases speeds by 6 times with RAM expansion to 16Mb. Only £210

THUNDERCACHE Aimed specifically at the extremely s l o w LC, LCII and Colour Classic this best selling board will more than double existing CPU speeds with the fast on-board 32k cache. FPU option also available. Only £210

Prices exclude VAT and shipping
Ask for our brochure for many other products

THUNDERCACHE Aimed specifically at the extremely s l o w LC, LCII and Colour Classic this best selling board will more than double existing CPU speeds with the fast on-board 32k cache. FPU option also available. Only £210

MAC RAPIDE 0171 267 1717
81 FORTESS ROAD, LONDON NW5 1AG

Future PUBLISHING

Wanted:

Ed. Production Assistant

MACFORMAT, Britain's best-selling Macintosh magazine, is seeking a full-time Editorial Production Assistant.

Your primary duties will be sub-editing editorial copy from both in-house and external writers, and DTP work on *QuarkXPress* documents. The job also involves various administrative duties, as and when needed, including telephone contact with hardware and software suppliers as well as office organisational work. You will be working with a Production Editor, and will be getting trained up to become a Production Editor yourself in due course.

The person we are seeking will be highly literate, with an eye for detail and a passion for getting the minutiae right. You will rapidly be able to develop the ability to spot waffle, and you will have the skill to transform turgid raw text into sparkling, well-structured articles. You will need to gain a feel for what the readers need to know, and be able to make sure they get it in a form they can follow. You'll be keen to learn, ambitious and passionate about the craft of magazines. Training and guidance will be given, but you will need to be Mac-literate (or pick it up so fast that we don't notice you weren't). Familiarity with *QuarkXPress* would be a major advantage. Salary will be dependent on age and experience.

Apply with full CV and examples of your work to Nichole Hunt at the address below:

30 Monmouth Street • Bath • Avon • BA1 2BW

Gamebusters

You're even closer to reaching *The Secret Of Monkey Island*. Plus: how to see all of the Starship *Marathon*.

HOW MUCH?

The Secret Of Monkey Island costs £19.99. For more details contact Kixx on 0121 625 3311. *Marathon* costs £58.74 – for more details contact Softline on 0181 401 1234.

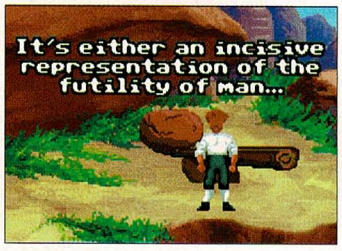
If all goes well on your ship, the cannon will fire you on to Monkey Island, complete with burning pants.

You're now on the verge of reaching the fabled Monkey Island, thanks to the guide sent in by MACFORMAT reader **Scott Love** of **Edinburgh**. Scott gets a copy of Sierra's voodoo adventure *Gabriel Knight* – and you could win a top game as well. All you have to do is send in a complete solution to one of your favourite testing games. We also have a delicious five-pound note for anyone who gets a smaller hint or tip published. But let's get on with the task at hand – specifically, cooking up some voodoo gumbo...

The Secret of Monkey Island

Go back to the room you started in. Use the key on the cabinet. Inside there's a chest. Open it to find a piece of paper. It's a voodoo recipe which will get you to Monkey Island. You don't have all the exact ingredients so you must improvise – use the table below to help you.

Putting all of these ingredients into the cooking pot will activate the voodoo spell and make you faint.



You have to use this see-saw to catapult a rock onto the beach and into the banana tree.

When you come to, pick up more gunpowder from the kegs and go up to the main deck. Use the rope with the cannon. Go back to the kitchen. Use Stan's business card in the red hot fire. Quickly go back up to the main deck. Use the cooking pot as a helmet. You will be fired onto Monkey Island.

Part 3: Under Monkey Island

Pick up the banana on the beach. Going into the jungle brings up the map. The map is bigger than one screen so you often have to walk off the edge. Go to the fort and pick up the rope and the spyglass. Push the cannon, then pick up the gunpowder and cannonball.

Go to the river fork. Pick up the note under the rock. Use the gunpowder with the dam. Strike the rock with the cannonball. The spark explodes the gunpowder and releases the dam. You will get washed down the river. Go back to the river fork. Climb the footholds. Line up the primitive art so that when you push a rock off the plateau (which is a screen above you), it will be catapulted onto the banana tree on the beach. If you miss, pick up another rock from the heap, adjust the primitive art to a new angle and try again. When the rock hits the banana tree, go to the beach and pick up the bananas. Go to the pond and pick up the rope – you should now have two.

Go to the crack. Use the first rope with the strong branch and climb down to the ledge. Use the other rope with the sturdy stump. Climb down to the bottom and pick up the oars.

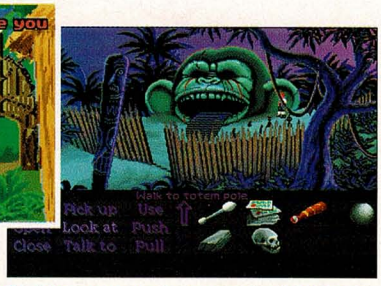
Go to the beach and use the oars with the row boat. Row to the beach in the north part of the island. Go to the jungle and then the village. Walk left to the bowl of fruit. Pick up the bananas. When you try to leave you will be confronted by cannibals. You have nothing to give to them but they won't eat you (it would be bad for their cholesterol levels!). When you get locked in the hut, pick up the skull, lift up the loose floorboard and escape through the hole.

Take the row boat to the southernmost beach and walk to the jungle. Go to the monkey, give him the five bananas you should have and he'll follow you. Head for the clearing on the east of the island. Walk to the totem poles, pull the nose of the left totem pole and walk away. The monkey will copy you, holding the nose down so you can walk through the gate.

Next month in MACFORMAT, the final thrilling instalment of the solution to *The Secret of Monkey Island*.

The cannibals may look threatening and hungry, but they actually turn out to be a friendly bunch.

Light the gunpowder by striking the rock against the cannon ball to make a spark. This will blow the dam.



Feed the monkey the bananas and he'll follow you. You can then get him to open this gate.

Monkey Island is a lot larger than Mêlée Island. It can sometimes be difficult to find your way around.

Marathon

We've just enough space for a tip from **Michael Hood** in **Canberra, Australia**, which should be all you need to see all of Bungie Software's superb blast-'em-up: when you're selecting a new game, simply hold down the [command] and [option] keys – this will enable you to start from any level you choose between 0 and 36.

Small but perfectly-formed, as tips go, Michael – thanks! And since British money is precious little use to you, how about a binder?

Send your letters to: Gamebusters, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW. **NICK HARPER**

BUBBLE AND SQUEAK?

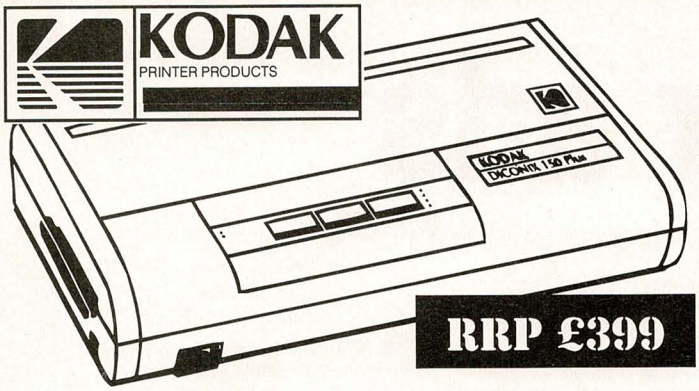
The voodoo recipe that will get you to Monkey Island is in the room you started in. The items listed in the recipe are a bit obscure, so try these substitutes:

Ingredient	What to Use
Cinnamon Stick	Cinnamon Stick
Leaves of Mint	Breathmints
Human Skull (Pressed)	Jolly Roger
Squid Ink	Ink
Monkey Blood	Fine Wine
Live Chicken	Rubber Chicken
Brimstone	Gunpowder

One or more of the following:
Pyridoxine hydrochloride,zinc oxide, mine mononitrate, Yellow 8, BHA, cereal.

PORTABLE PRINTER SCOOP

KODAK
PRINTER PRODUCTS



RRP £399

Kodak Diconix M150 Plus

Portable ink jet printer for Apple Mac and Powerbook computers; 150 CPS draft, 50 CPS NLQ, quality mode plus graphics (uses plain paper). Inc Macprint M150 print driver plus ATM software inc 13 typefaces.

Mains/battery power (batts extra) - 50 minutes printing.

The M150 Plus weighs just 3.1lbs and measures 2" x 6.5" x 11" - fits easily into a briefcase. **LIMITED SUPPLY**

£99

Please note prices ex VAT & delivery - goods subject to availability,

Morgan Computer Co.

BRANCHES IN LONDON, BIRMINGHAM & MANCHESTER

Unit 25 Derby Road, The Metropolitan Centre, Greenford, Middlesex UB6 8UJ
Tel 081-575 0055 Fax 081-575 7985

MAXiS ON LINE

PRESENTS

PRACTICAL INTERNET WEB PUBLISHING

WITH AN EMPHASIS ON USING APPLE MACS

13-14TH JULY 1995 17-18TH AUGUST 1995
13-14TH SEPTEMBER 1995

1 DAY SEMINAR ONLY £49.00

FOR MORE INFORMATION CALL

0171 252 0252

Mr. Memory

If you have a better price, we will beat it.

30 Pin SIMMs

1Mb	26.00
2Mb	53.00
4Mb	87.00

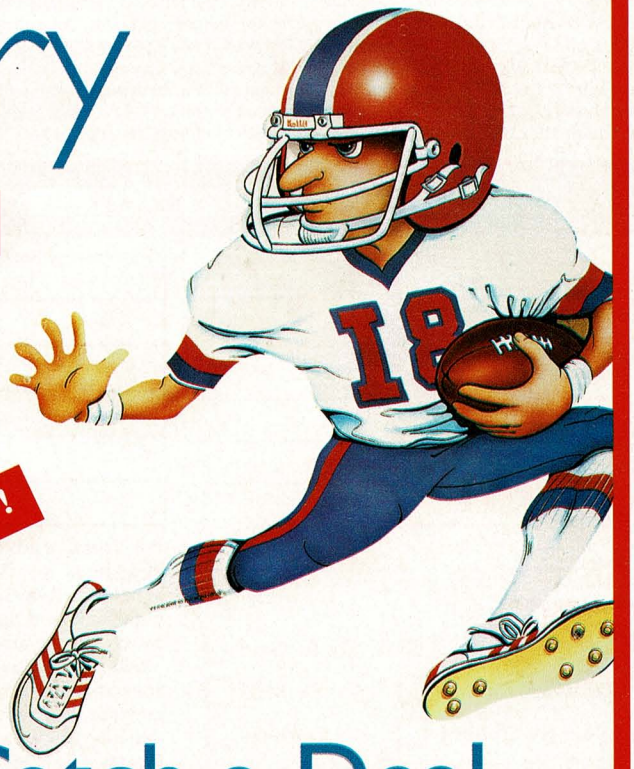
72 Pin SIMMs

4Mb	96.00
8Mb	195.00
16Mb	319.00
32Mb	629.00

VRAM

256 VRAM	8.95
512 VRAM	23.90

Call us now !



Strictly no surcharges on credit card transactions.
E & OE. Excluding VAT & Delivery. All Credit Cards accepted.

Catch a Deal

DELIVERY NEXT DAY BEFORE NOON GUARANTEED • 100% PRE-TESTED • COMPLETE MAC RANGE IN STOCK • FULL TECHNICAL SUPPORT • UNBEATABLE PRICES • FULL 5 YEAR GUARANTEE • TEL 01483 799 410 • FAX 01483 799 884

Free reader ads

If there's anything you want, whether hardware or software, or you want to find a local user group, look no further...

HARDWARE FOR SALE

■ Mac LC 6/40, 12-inch Apple colour monitor, maths coprocessor, external stereo speakers, carry case, microphone, keyboard, mouse, all cables, external APS, 105Mb hard drive, HP DeskWriter printer – offers over £900, may split. ☎ 01753 620982

■ IIci, 8Mb RAM, 100Mb hard disk, Apple Cache Card, 13-inch Trinitron monitor, keyboard, mouse, plus extras – £750 ono. Graham ☎ 01865 326222 (day) 01865 251867 (eve)

■ Ethernet cards, three for sale to fit Mac II series – £50 ea. Graham ☎ 01865 326222 (day) 01865 251867 (eve)

■ Mac IIvx, 20Mb RAM, 200Mb hard disk, SuperMac VideoSpigot card, keyboard, mouse, plus extras – £900 ono. Graham ☎ 01865 326222 (day) 01865 251867 (eve)

■ PowerBook 160 4/80 with bag, boxed, as new – £600; A3 Kurta Graphics tablet – £75 (not pressure sensitive);4 x 4Mb IIfx SIMMs – £200. Martin ☎ 01525 379441

■ SIMMs, 4Mb 72-pin, 70ns, suitable for LCIII/475/Centris/Quadra/Power PC – £75 ea. Jules ☎ 01235 520507 or e-mail marshall@v2.rl.ac.uk

■ IIfx SIMMs, 4 x 4Mb 70ns, suitable only for Mac IIfx – £400 ono for the lot. Jules ☎ 01235 533895 or e-mail marshall@v2.rl.ac.uk

■ Printer HP 1200c colour inkjet 300 x 300dpi, colour 600 x 600 B+W, retails £1,200 & vgc, only £400. ☎ 01342 826648

■ Performa 400 8/80, System 7.1, 512K VRAM, 12-inch monitor, range of software – £700. Lesley ☎ 01332 515454

■ Mac IIcx 8/40, Apple Trinitron colour monitor, System 7, extended keyboard, mouse, manuals, home use only, exc condition – £850 ono. Could deliver ☎ 01453 755805 (eve)

■ 2 x 4Mb 72-pin, 70ns SIMMS for quick sale due to memory upgrade – £150 inc p&p. ☎ 0171 370 4922 (eve)

■ 4Mb SIMM, 72-pin, unused from new LC630 – £70 or swap for *Home Publisher, KPT Bryce, Now Utilities 5.0, Grolier Encyclopedia* or similar. Steve ☎ 01689 821615

■ LaserWriter II NT PostScript laser printer, good working order – only £350. Selby, North Yorks ☎ 01757 704134 (day) 01757 704928 (eve)

■ Classic 4/160, Harris 68030 accelerator – £450; Epson LQ400 24-pin printer – £50; both excellent, home use only. Rev Michael Bradley, Flitwick ☎ 01525 712369 (anytime)

■ Memory card HMB for PowerBook 140/170 – £80 or swap WHY. Adam ☎ 0131 661 5427

■ LCII 10/40, 11 mths old, 7.1, *ClarisWorks*, 14-inch colour monitor, keyboard, mouse, manuals, 1 yr old, still on warranty – £600. ☎ 0181 891 2027

■ PowerBook Express fax/data modem, new, never used, original sealed condition – £175 ono. Norfolk ☎ 01953 605541 (eve) or 0374 100285 (mobile)

■ Mac LC 10/40, 512K VRAM, mouse, no keyboard, no monitor, exc condition – £300 ono; PowerBook 100 6/40 – £100. Warren ☎ 0181 298 0541 (after 7.30pm)

■ Centris 610 8/80 with 10 mths of extended warranty remaining, original packaging, manuals etc – £500. ☎ 0181 809 4356

■ Performa 400 6/80, 12-inch monitor plus CD-ROM drive, home use only, exc condition – £475. ☎ 0121 471 4812 (leave message)

■ Toshiba XM-3301B CD-ROM drive for sale with cables and manuals – £150 ono. Keith ☎ 01245 284 278 (eve)

■ 4Mb 1x32 72-pin SIMM, no parity– £85 ono. James ☎ 0131 661 0866

■ Apple IIE with twin disk drives, monitor and ImageWriter printer, good condition, offers for this museum piece. Baz ☎ 01706 372374

■ Performa 400 4/80 plus manuals, *ClarisWorks* and other software, one year old, rarely used – £500, no offers. Delectables ☎ 0181 672 4465

■ Performa Plus, 14-inch monitor, bought in November '94, still under guarantee – £150. ☎ 0171 262 6290

■ Mac display card, 24AC, still under warranty, cost £650 new – £490 ono. Leamington ☎ 01962 334594 or e-mail simon@factor.demon.co.uk

■ LC 630 4/350 with Sony Triniton SF 15-inch colour monitor, both boxed and as new, System 7.5 installed – offers. Gareth, N London ☎ 0181 441 2780

■ LC 10/40, no monitor, no keyboard, System 7.5 – £300. York ☎ 01904 470487

■ Mac LC475, 8Mb RAM, 160 HD, StyleWriter II CD300, loads of software, v light use, 14-inch RGB monitor, keyboard, mouse, headphones – £1,300. Ashok ☎ 0141 357 5087

■ Canon CLC10 colour photocopier, laser printer, scanner, hardly used, original box, extra paper provided – £2,000 ono. Jenny ☎ 01905 619961 (day)

■ PowerBook 540c 20/30 plus Powerport Mercury internal modem, as new – £3,500. ☎ 01869 248783

■ Radius Precision colour pivot 15-inch monitor, portrait or landscape 'on the fly', brand new, can install, perfect for A4 view DTP, half price – £340. ☎ 0171 229 7633

■ Apple IIvi, hardly ever used, 5/80, mint condition, with medical general scientific software guaranteed to make you jaw drop! Reasonable offer secures. ☎ Dublin 353 1 831 6034 (home) 353 1 702 1555 (work)

■ Mac LC 6/40, 12-inch Apple colour monitor, keyboard & mouse, System 7.5, exc condition, home use only – £475 ono. ☎ 0171 237 9520

■ Performa 450 4/120 with mouse, keyboard, monitor, one yr old, lots of software, including original disks and manuals, sale due to upgrade – £850. ☎ 01865 512116

■ Mac IIsi 17/40, FPU, new Performa Plus 14-inch monitor, new Apple design keyboard, mouse, microphone, System 7.1, *RAM Doubler* etc – £700. ☎

MACFORMAT READER ADVERTISEMENT FORM

Name .....
(Not for publication)

Address .....

.....

.....

.....Post code .....

Telephone .....

Date .....

Category

Software for Sale ☐
Hardware for Sale ☐
Wanted ☐
Swap Shop ☐
Contacts ☐
Help Wanted ☐
Fanzines ☐

User groups

New entry ☐
Updated entry ☐

For your free advert, please use this coupon or a photocopy. Only the words in the squares will be printed – use one square for each word and remember to include your contact phone number!

All ads are accepted in good faith. MACFORMAT can't guarantee insertion in a particular issue, and reserves the right to refuse or edit any ad. We can accept no responsibility for typographical errors or any losses arising from the use of this service.

Private advertisers only. Trade ads will not be accepted, including anyone advertising the sale of PD software.

MACFORMAT is not a forum for selling pirate software. If you are selling software, you must include a signed statement that you are selling the original issue disks and including all original manuals and documentation, and that you have not retained any copies of the software.

I have read and understood the conditions for the inclusion of my free reader ad.

Signed .....

Send your form to: MACFORMAT reader ads, 30 Monmouth Street, Bath BA1 2BW.

USER GROUPS

Need hands-on help with a Mac problem? Want to swap shareware or freeware, or just meet other Mac enthusiasts? Try a user group near you...

■ Nottingham Computer Club. Please send an SAE to Sherwood Community Centre, Mansfield Road, Nottingham. (MF30)

■ Sheffield Mac user group starting, seeks help, advice, shareware, etc. Send SAE to Ian Perrin, 35 Dunkeld Road, Sheffield, S11 9HN. (MF28)

■ Performance user group/ newsletter for home users. Non-commercial. Send large SAE for details. REF: MF, 36 Oakfield Close, Laurel Fields, Potters Bar, EN6 2BE. (MF30)

■ Performance user group/ newsletter for home users. Non-commercial. Send large SAE for details. Ref MF, 36 Oakfield Close, Laurel Fields, Potters Bar EN6 2BE. (MF30)

■ Jerusalem, Israel. Tel: Azzedine Downs 972 02 277 376 e-mail: **62876587@e/n.attmail.com**. We are just starting. (MF30)

■ Mac Attack user group, regular newsletter, special reductions, send SAE to 17 Lissadell Drive, Magherafelt, Co Londonderry, BT45 5AR or contact David Gillespie (Director) on 01648 33893. (MF32)

■ Keynet BBS now on-line – 0181 954 0847. For musicians, music, MIDI, *Finale, Cubase* etc. Mac, PC, Atari. Two high speed lines, 24 hours. (MF32)

■ The Computer Textile Design Group. The essential link between computer and textile designers. Contact Dee Chester, 12 Le Brun Road, Eastbourne, BN21 2HZ. (MF32)

■ North West Macintosh and Apple user group. Cheshire area, north. Contact Mr Sean McCleery on 01270 624271. (MF33)

■ New Oxford user group. We're currently looking for members, help and shareware. Send an SAE to 30 Sandrield Road, Headington, Oxford OX3 7RJ. Monthly magazine! (MF33)

■ Pentrisoft – the programmers' user group. Distribution, tips and advice. Write to Stéphane Gray, 'Oaklands', Rock Lane, Hastings, East Sussex, TN35 4NY for details. (MF33)

■ Appel Club Eindhoven, The Netherlands. Contact Arie Nagel +3140 523879,e-mail: a.p.nagel@bdk.tue.nl (MF33)

■ The Mac Netsurfer Group – a net discussion group for Mac users. If you're interested, please fax me (Josh) on 0171 328 5888 or e-mail: Maniac@badapple.demon.co.uk (MF33)

■ ClubMac Cork, for all Mac enthusiasts outside of Dublin. Monthly meetings, own Bulletin Board, newsletter etc. Online to Internet at meetings. New members welcome. For details telephone or fax Dominic Murnane on 026 41167 or e-mail dominicm@eirenet.net (MF33)

■ Peter and Paul's Practical Page! The ultimate net hot spot for kids by kids! The e-mail address is: http://inchnd.stir.ac.uk/relstd/kww1/paul/Peter&Paul.html (MF33)

■ Mac Jungle BBS, on-line with new host software – call 01235 520507 (MF33)

Groups will be listed here for six issues, then deleted in order to help weed out defunct groups. The code at the end of each entry is the last issue in which it will appear. If you want your entry renewed, send in the coupon on page 138. If your group isn't listed here, then send us your details!

Please note: this list is provided as a free service for amateur, non-profit-making Mac user groups. MACFORMAT does not endorse or recommend any group and cannot be held responsible for any problems you might suffer as a result of contacting groups advertised here.

01738 637906 (eve)

■ Sigma Power Portrait A4 mono monitor for any Mac, no card needed, inc *QuickDraw* accelerator, boxed, perfect condition – £175 ono. Coventry ☎ 01203 673963

■ Rasterops 8x1i accelerated graphics video board, to fit Mac II series, £400 ono. Graham ☎ 01865 326222 (day) 01865 251867 (eve)

■ LCII 4/80 33MHz/FPU accelerator, 14-inch high res monitor, keyboard, exc condition – £750 ono or sell CPU only. Jan, Oxford ☎ 01865 275693 (day)

■ LC475 4/80 bundle, 10 mths old, immac condition, £750. Stroud ☎ 01453 765127

■ Mac IIci 8/80, mouse, keyboard, System 7.5, 16-inch monitor, Apple CD300, Micronet 44Mb removable disk drive, StyleWriter, US Robotics 14.400 v.42 bis fax modem – £2,000. Watford ☎ 01923 448661

■ Apple CD300e Plus – £150; *Cinemania, Them Park* CD, *Star Trek 25th*, MACFORMAT CD issues 1 and 3 and Nov '94 to Feb '95 for sale or swap for PC versions. John ☎ 01892 652 621

■ Newton Messagepad 100, connection kit, IMB flashcard – £75 ono, complete with original box & manuals. Bob ☎ 01932 343857 or Compuserve 100020,420

■ Mac Performa 400, 8Mb RAM, 350Mb storage, 512K VRAM, plus *ClarisWorks & Microsoft Word 5.1* plus CD-ROM 300 (Apple) with SCSI cables, 14-inch display standard keyboard – £1,000. ☎ 0181 292 7981

■ Radius colour pivot monitor to fit a SE/30, superb colour A4 screen for your Mac – landscape or portraits – £300. ☎ 01286 870729

■ Omniscan package 400dpi hand held scanner, 'direct' OCR, image assistant, faxmaster, new, boxed, unregistered, scan, read, fax, edit – £199 inc delivery. ☎ 01993 775179

■ 2 x 256K video SIMMS, 68-pin 70ns – £8 ea. Gary, Edinburgh ☎ 0131 337 4238

■ Apple 12-inch RGB colour monitor, one yr's light home use only –£60. Geoff, Derby ☎ 01332 704360

■ PowerMac start-up disk for sale, System 7.5 on CD-ROM – £30; Apple single speed CD – £60, external. ☎ 0181 659 3978

■ Performa 600(IIvxJ) 4/80 FPU inc *ClarisWorks* and others, all manuals, boxed, as new, 6 mths old – £650 ono. Simon ☎ 0161 437 7746 (eve)

■ PowerMac 6100/60 with 14-inch colour Trinitron monitor, standard keyboard, mouse, extras, only used for college project over past eight mths, excellent buy – £1,500. Mike ☎ 01202 426593

■ Poweruser CD-ROM, double speed, photo CD compatible – £100. ☎ 01232 761457 (eve)

■ Mac SE30 8/80, System 7.1, keyboard, mouse – £400. ☎ 01299 251109

■ Performa 400 (LC) 4/40, 14-inch colour monitor, 256 colour upgrade, *ClarisWorks 3.0* and more, manuals, boxed –£350. Nigel, E London ☎ 01732 777660 (day)

■ Performa 600 CD 5/80, 14-inch colour monitor, keyboard, mouse, exc condition, six mths old, boxed, hardly used – £925. ☎ 01296 738082

■ Performa 475 4Mb 160Mb hard, Apple 300 CD-ROM, *ClarisWorks, HomePublisher*, 14-inch monitor, six mths old, mint, free Newton – £695. Devon ☎ 01395 513583

■ LC475 8/160, System 7.1, mint condition, boxed with manuals – £800. W Yorks ☎ 01274 604334

■ Personal LaserWriter NT, 300dpi, Postscript, new toner cartidge – 3320. Paolo ☎ 01524 421386 (day) 01524 411894 (eve)

■ LCIII 4Mb RAM 80Mb HD – £800; Apple LaserWriter Select 300kpi printer – £500 ono. Matthew, Penzance ☎ 01736 61044

■ LaserMaster 800dpi printer with 135 fonts, manuals, cables, software for System 7.0 and 7.1 – offers around £800. Amersham, Bucks ☎ 01494 865382

■ Mac LC, 6Mb RAM, 40Mb HD, 12-inch Apple colour monitor, maths coprocessor, external stereo speakers, carry-case, microphone, keyboard, mouse, all cables; external APS 120Mb hard disk, all cables; HP DeskWriter printer – offers over £900 for the lot, may split. ☎ 01753 620982 (eve)

■ Performa 600-CD 8/80, 4Mb, FPU upgraded monitor, keyboard, mouse, manuals, still under warranty – £1,350. Matthew ☎ 01624 833133

■ Performa 400 4/40 with almost new 14-inch SVGA colour monitor, keyboard, mouse, manuals, with considerable software, hardly used – only £800. Martin ☎ 01244 312634

■ Caere Typist, 8-bit greyscale hand scanner with OCR, software & manuals inc – £149; Apple 800K external disk drive – £35. ☎ 01923 822580

■ 100 5.25-inch double density disks – £13 inc p&p, labels, without disk sleeves. Matthew ☎ 0181 524 4326

■ Calcomp Drawing Board II drawing tablet with pressure sensitive pen, A4 size, serial connection, as new – only £175. Huddersfield ☎ 01484 510753

■ HP320 DeskWriter inkjet printer, inc automatic sheet feeder & colour kit, almost new, selling because bought a thermal wax printer – £200. Huddersfield ☎ 01484 510753

■ Performa 450, CD drive, StyleWriter II printer, all 13 mths old, exc condition, *ClarisWorks, Sage Accounant*, games, CDs – £1,000 ovno. ☎ 0117 951 0746

■ Colour Classic 10/80, *ClarisWorks*, System 7.5.1, all manuals & boxes, 15 mths old – 3600. ☎ 01895 273180 (after 5pm)

■ DAT, Micronet 2-8Gb, as new, offers please. Jacqui ☎ 0181 964 8372

■ Lexmark laser printer 4039 12R+ 12PPM fast RISC and 4Mb RAM onboard 200 sheet input Mac or PC, networkable, unwanted prize, worth £1,700 sell £1,200 ono. Mark ☎ 01962 852076

■ 4 x 1Mb 30-pin SIMMs – £20 ea. Austin ☎ 0973 511073 (any time)

■ Apple CD300 External CD player, boxed, as new, internal mounting kit for IIvi/IIvx/Performa 600/Centris 650/Quadra 650 £10 extra. Austin ☎ 0973 511073 (any time)

■ ImageWriter II, light domestic use, original ribbon, boxed – £140. Perth ☎ 01738 551278 (eve)

■ 4Mb 72-pin SIMM 70/80ns – £90. ☎ 01705 610340 (eve or wkend)

■ SE2/20 with mouse, keyboard, external floppy drive, lots of software with manuals, System 7 disks and manuals, complete introduction kit – £240. ☎ 01722 716460

■ Performa 630 Plus 8/350 HD, CD, TV, Video-in 15-inch Multi-scan Display StyleWriter 2, boxed, only three mths old – £1600. Frank ☎ 01202 292137 (eve)

■ Quadra 650s, 16Mb RAMs, 130 HDs, 15-inch high res Trinitron RGBs, all peripherals, HP DeskWriter 560c, both guaranteed, seven mths old, & software offers! Alan ☎ 01992 768410

■ HP DeskWriter 550c, hardly used, hence sale – £250. ☎ 01892 511165

■ Duo 230 8/80, floppy drive and adaptor, case, *Excel, Word 5.1*, System 7.5, 12 mths old, private use, vgc £895. Ian ☎ 01768 890502

■ Duo dock 40Mb drive, Design keyboard, all 12 mths old, plus new Apple Trinitron monitor, System 7.5, private use, all vgc – £575. Ian ☎ 01768 890502

■ CD-ROM Toshiba x3.4 external caddyless drive, like CD300e, but much quicker, almost new, excellent, swap for CD300i internal or £150. Ian ☎ 01768 890502

■ LCIII 4/80, Maths Co-pro, CPU only, boxed, manuals and System software, light home use, as new – £350 ono. Birmingham ☎ 0121 352 0668

■ Colour monitors – Hitachi 21-inch (x 2) as new – £495 ea, no reasonable offer refused. ☎ 01302 719997 (office)

■ PowerBook 165 8/80, System 7.1, *ClarisWorks, RAM Doubler*, ATM, manuals, carry bag, mint, £800. Tom, Bournemouth ☎ 01202 553194

■ UMI RTX Robotic arm, RS232 interface, 240V, will swap for a fast Mac or the money to buy one! ☎ 0115 972 8210

■ HP DeskWriter 320 with automatic sheet feeder and colour kit, only three mths old and hardly used, perfect – only £200. Huddersfield ☎ 01484 510753

■ LC475 8/160 + CD300, 14-inch monitor, keyboard etc – £800; DEC laser 1152+ – £500, both boxed, 1yr old. SW London ☎ 0181 767 2779

■ Performa 400 (LCII) 10/350, external speakers, 14-inch Apple monitor, *ClarisWorks 2.1*, loads of games & other software – £1,000 ono. ☎ 01223 277281

■ Radius Pivot A4 mono screen – £895; *Lotus 1-2-3 V1.1* –£60; *Access Accounting*, full accounts package – £395; most modules SE30 8/40. Alan ☎ 0181 941 3196 or e-mail alan@hecate.demon.co.uk

■ Performa 450 (LCIII) 4/120, 14-inch Trinitron monitor, keyboard, mouse, inc *ClarisWorks*, 7 mths old, with 5 mths guarantee remaining,

Continued on next page

plus StyleWriter II – £800 ono. ☎ 0171 281 3541

■ Two 1Mb SIMMs 30-pin 80NS – £40 for pair. Can deliver and install. Rory ☎ 01782 750700 (day) or 01782 750080 (eve)

■ Classic II 4/40, *ClarisWorks 1.0, Keyfonts*, System 7.01, no mouse – £350 ono. Nick ☎ 01271 43376

SOFTWARE FOR SALE

■ *Director 4*, brand new, offers please. Jacqui ☎ 0181 964 8372

■ *Microsoft Works* version 1, *Multiplan* (upgrades to *Excel*), shrink-wrapped, provides inexpensive upgrade path to current versions, sensible offers invited. Hertfordshire ☎ 01920 467930 (eve)

■ *Iron Helix* & *Redshift* CD-ROMs £20/£30 respectively. Andy ☎ 0161 766 3956

■ *Opcode Studio Vision A/V*, integrated hard disk and sequencing pacage, inc latest updates and documentation, registered – £275. John ☎ 01539 727295

■ *Intellidraw V2* – £65; *ClarisDraw* – £125; *KeyCad Complete* – £20; *TurboCad* – £40; *More Keyfonts* – £20; *4D First* – £50, all complete with disks & manuals. Jim ☎ 013552 62845

■ *Myst* – £25; *Iron Helix* – £15; *Prince of Persia I & II* – £10 & £15; complete *Lemmings* CD – £10, swap offers very welcome. Norwich ☎ 01603 451839

■ *Myst* complete in box – £20; *Journeyman* complete in box – £12; *Claris Organiser* (British) still unregistered – £20; *Claris 2* with manual – £20. ☎ 01524 35262 (after 6pm)

■ *Microsoft Works V. 4.0* new, unopened gift & unregistered – £75. Richard ☎ 01252 517567 (eve)

■ *Symantec C++ 7.0* – £199; *Think C 6.0* – £95; *SimCity 2000* – £15. Takaya ☎ 0191 213 0228

■ Loads of software collected over 3 yrs of Mac ownership, utilities, shareware, programs, games, all will work on LCII upwards. Owen ☎ 01202 479981

■ System 7.5 on high density floppy disks, original Apple disks, inc manual – offers. Simon ☎ 0181 441 2780

■ *Mac Syndicate* – £25; *Iron Helix* (CD) – £25; *Journeyman Project V.1.2* 30☎ faster – 325 or £60 for all 3. Chris ☎ 01457 878806 (day)

■ *PGA Tour Golf, Nascar Challenge Racing, Mac Ski, Mutant Beach, Another World* – £50 for the lot. Matthew ☎ 01457 878806 (day)

■ *Lemmings, Civilizaton, Macintosh Game Pac, Lost Teasures of Infocom, Deliverance* – £50 for the lot. Chris ☎ 01457 878806 (day)

■ *Kaleidagraph 3.0* for Mac 680x0 or PowerMac native – the best graphing package available, boxed, as new, with manuals etc – offers. Simon ☎ 0181 441 2780

■ *ClarisWorks 3.0* still shrink wrapped, won at Apple Expo – £80 ono; SIMMs 4x1Mb, 30-pin (Performa 600) – £50 ono. Avis ☎ 01275 843696 (after 6pm)

■ *RAM Doubler* & Disney screen saver, both unregistered & complete with manuals – £40. Andy ☎ 0181 668 5109

■ *Claris Organiser 1.0* unopened & unregistered, UK version – £25 ono for Mac or PowerMac. ☎ 01782 750700 (day) or 01782 750080 (eve)

■ *Avid Video Shop* unopened, unregistered, CD-ROM pack, rrp £351 – sell £100 ono. ☎ 01744 756882

■ *Virtus Walkthrough Pro, 3D Drawing & Visualisation*, boxed, as new, recommended 8Mb free RAM, FPU – £180; *PageMaker 5* – £165. ☎ 01684 568243

■ *MacWrite Pro*, unopened – £80; games: *Civilisation* – £20; *Red Baron, Monkey Island 2, PGA Tour Golf* – £16 ea. Jon ☎ 01243 266919

■ *Painter 2.0* with *Painter Companion* original, sealed, unregistered disks & manuals, incredible effects & natural media simulation, unwanted duplicate – well worth £195. ☎ 01995 671691

■ *C64 Emulator* for the Mac – £4 inc p&p. Matthew ☎ 0181 524 4326

■ *ClarisWorks 2.1* only a few weeks old, still shrink wrapped, runs on all Macs & accelerated for PowerMacs – £100, a bargain. ☎ 01222 865184

■ *Adobe Premiere 4.0* unused, still sealed, genuine reason for sale – £300. Hants ☎ 01420 562935

■ *FrameMaker 3.0* (English) – £150 ono; *Microsoft Word 5.0* – £50 ono; *NFS/Share* by Intercon – £20. Don ☎ 01279 412 841

■ Original Mac software: *Microsoft Works 3.0* – £30; *Microsoft Mail 3.0* – £20; *PixelPaint 2.0* – £15; *Flight Simulator* – £15; *Square One* – £15; *Jag II* – £20. Huddersfield ☎ 01484 510753

■ *Theme Park, Links Pro, Iron Helix* all boxed originals – £25 ea inc p&p or £60 the lot, could swap. David ☎ 01865 873079

■ *MacDraw II, Microsoft Word 4.0, Microsoft Excel 3.0, Sam 3.0* – offers. ☎ 0121 325 1224 (after 6pm)

■ *Aldus Intellidraw*, unopened, unregistered – £60. Leicester ☎ 01589 419818

■ *Myst* – £25 or swap for *Marathon*. Doug ☎ 01638 660106

■ Macadamy video training series, *Photoshop 2.5*, tape 2 video, as new – £20 plus postage. ☎ 01643 821782

■ *Marathon* – £30; *Myst* – £20; *Complete Lemmings* – £10; *Prince of Persia I* – £10, swap very welcome, games & PowerBook 140 wanted. Norwich ☎ 01603 451839

■ *Freedom of the Press* software or similar for Mac. Keith ☎ 01299 266094

■ *Marathon* – £26; *Wolfenstein 2* – £10 with edit software. Phil ☎ 0171 708 5091

■ *RAM Doubler 1.5.1* – £35; *Aldus Datebook Pro 2.0* – £25, both new, boxed with manuals & unregistered. Simon ☎ 0181 723 0589 (eve)

■ *Adobe Photoshop 2.5*, unregistered, full version – £300. Taras ☎ 0115 962 4900

■ *KeyCad Complete 1.0* as new, unregistered – £15. Russell☎ 01285 861550

■ *Adobe Photoshop 3.0*, unused, complete, originally bundled with scanner – £250. Craig ☎ 01376 550973

■ *Kings Quest VI* – £25; *Leisure Suit Larry 5* – £20; *SimEarth* – £15, offers welcome. Wanted: *Theme Park* (CD) and external hard drive. Adam ☎ 01707 321558 anytime

■ *MacDraw Pro* (Claris); *Morekeyfonts Pro; Suitcase; Crossword Creator; Claris Organiser; Access PC;* all manuals plus MACFORMAT disks most from 2-22 and mags – offers. ☎ 0181 245 3588

■ *Marathon* unopened, unwanted prize – £30. ☎ 01202 697070

■ *Marathon* – £30; *Prince of Persia* – £10; adaptor to connect Atari/Commodore joysticks to Mac – £30 ono. Norwich ☎ 01603 451839

■ Unopened, unregistered, unwanted gifts: *Tortoise & Hare* – £20; *Encarta 1994* – £25; *Myst* – £20; *Musical Instruments* – £25; *Dvorak's No.9* – £30. Charlie ☎ 01905 640530

■ *Might and Magic 1 & 2, Shadowgate Citadel AD&D, Pools Radience, Pools Darkness, Secret Silver Blades* – £38; *Darkseed* – £19; *Iron Helix* (unboxed) – £19. Ben ☎ 01274 403858/75327

■ *Prince of Persia II* and *Monkey Island II* – £20 ea or will swap for *Syndicate, Myst* or *7th Guest*. David ☎ 01483 415274

WANTED

■ *Fontographer 4.1*, earlier versions considered, cash waiting, RAM upgrade for LaserWriter 320. Shailesh ☎ 0181 654 4808

■ Software: *FWB CD-ROM ToolKit, RAM Doubler, Myst*, will pay £20 ea, must be original with manuals etc. ☎ 0181 989 8683

■ Colour Classic 4/40 inc keyboard wanted, must be little used. ☎ 01788 860851

■ PowerBook 180, cash waiting. Garry, Leeds ☎ 0113 244 4738

■ ImageWriter II wanted, must be good condition, up to £100 offered. Bob, Edinburgh ☎ 0131 664 0577

■ Newton accessories, connector kit, flash cards etc. Rob ☎ 0171 251 5105 (wkdays)

■ 4Mb upgrade (30-pin) mega cheap! 120Mb + internal/external HD for £90 – £110. Any other cheap upgrades for LCII (hardware). ☎ 01202 479981

■ Really cheap modem, over 9,600 band, but 14,400 preferred, all necessary software if possible, must be in good condition. Owen ☎ 01202 479981 (after 4pm)

■ Any photo/audio CD compatible drive (double speed preferred), super cheap prices, will be glad of bundled disks. Owen ☎ 01202 479981 (after 4pm)

■ Fax/modem portable for PowerBook, ideally with accoustic hood but not essential, minimum 14,000 baud. Baker, Birmingham ☎ 0121 449 4758

■ Keyboard and Kensington Turbo mouse wanted. ☎ 01737 761081

■ Performa 450 with keyboard plus colour monitor and inkjet printer. ☎ 01556 630291

■ Any multimedia software for cash, expecially *Macromind Director 3/4*. Craig ☎ 01376 550973

■ A live PowerBook 100 battery urgently needed. ☎ 01458 835262

■ 80Mb or bigger hard disk and battery charger unit for PowerBook 100. ☎ 01903 213906

■ CD-ROM from issue 20 of MACFORMAT, cash awaits. Dave ☎ 01202 553194

■ Top prices will be paid for MACFORMAT CD-ROMs from issue 13 to 20. Contact by fax on 00 48 3 153 8624 for the attention of Martin Chrobot

■ 512K VRAM wanted for LC, will pay £10 cash and collect from seller. Rory ☎ 01782 750700 (day) or 01782 750080 (eve)

■ Any emulators for Mac. Matthew ☎ 0181 524 4326

■ Program that multi formats disks. Matthew ☎ 0181 524 4326

■ *PGA Tour Golf II*, will swap for *SimAnt* plus £10. Frank Junior ☎ 01865 68023 (eve)

■ Colour printer, eg StyleWriter Pro, StyleWriter 2400, HP 540c, 560c, 660c. ☎ 01273 857307

■ Shareware/PD contacts wanted to swap software, games/education etc. Send disks to: Brian, 32 Kier Hardie Crescent, Newport, Gwent, NP9 9DQ – all replies answered

■ *Paper CD, Script Wizard, Code Warrior Bronze*, & Microsoft *Cinemania* CD-ROM. reasonable prices please! Anna, ☎ 0171 229 7633

■ Duo Docking Station, plus Duo Memory Upgrade. ☎ 01477 537366

■ *Tracon/Air Traffic Control Simulator* game – Mac Performa 450 disk compatible, now discontinued; also *Monopoly* – can't find in the UK! Mark ☎ 0181 882 8503

■ I'm looking to buy MACFORMAT CDs 1 & 2. Good prices paid. James ☎ 0181 876 8443

■ Battery for PowerBook 100; SCSI cable for PowerBook; *WordPerfect Works* and Microsoft *Cinemania* CD-ROM for the Mac. Richard ☎ 01480 300409

■ Sheet feeder for *ImageWriter 2*. ☎ 01453 833044

■ 2 x 2Mb SIMMS, 100K or less, 30-pin, ns internal/external 160Mb or greater HD – cash waiting. ☎ 01752 500363

■ DayStar Turbo 040 accelerator card, 40MHz with FPU. Frode ☎ Norway 47 51 58 60 81 or fax Norway 47 51 58 49 69

SWAP SHOP

■ *Marathon* swap for *Rebel Assault*. Phil ☎ 0171 708 5091

■ Swap *Photoshop 3.0* complete, unused, for any multimedia based software. Craig ☎ 01376 550973

■ I have *Myst* and I want to swap it for *Monkey Island 1* or *2*. Can you help? If so, ☎ 0181 440 4474

■ I have a PowerMac with 128Mb Magneto-Optical Driver, and I'll swap sharewares etc. Write to: Olivier Belot, 56 Rue Jean Argelies, 91260 Juvisy, FRANCE

■ Will swap *Rise of the Dragon*, unused, unregistered, for *Prince of Persia 2*. Neil ☎ 01992 551735

■ PowerBook 180c 8Mb + 200Mb + drive and modem exchange for Sony Pro 8 camcorder, many extras. Alan ☎ 0181 941 3196 or e-mail alan@hecate.deaton.co.uk

MISCELLANEOUS FOR SALE

■ MACFORMAT back issues, numbers three to 13 with disks (10 copies, no. five missing); also issues 17 to 23 with CD – £4 ea, £55 altogether. Peterborough ☎ 01733 265165

■ Caere handheld scanner (Typist) manuals, disks etc, vgc – £90. ☎ 0181 245 3588

FANZINES

■ *The Mac City Challenge – SimCity 2000* fanzine. Over 4Mb, over 50 scenarios. Issue 1 now only £2 (in coins) to: TMCC, 21 Milldown Avenue, Goring, Reading RG8 0AS

Buying advice

Whether you're buying by mail or in person, here are some sensible precautions to bear in mind. Note that everything here applies to buying from a business; most of it does *not* apply to buying from a private seller in MACFORMAT's reader ads pages.

Always be absolutely clear about what is included in the price – postage and packing? Any necessary cables, etc? VAT? (By law, an advert must say *explicitly* if VAT is not included; if it doesn't, VAT *is* included. But this could be in the small print – so make sure you read it all!) If you're buying in person, check that everything is there and that it all works properly before you leave the shop. If you're buying by mail, ring the supplier first to confirm the price and availability, and ask what your options will be if there should be any problem. Find out when you can realistically expect delivery. Always keep all the receipts and make records of all correspondence, whether it's by mail or by phone.

How to protect yourself

If you are buying goods of more than £100 in total value, always use a credit card if possible. That way, in the unlikely event of anything going wrong, you'll be legally entitled to claim against the credit card company as well as the seller, even if the seller has gone bust. You might also get extra insurance – check with your credit card company.

If you don't have a credit card, always pay by cheque or postal order (ask at your local post office). Never send cash through the mail – it is impossible to trace if it gets lost, you can't stop payment if you need to, and even if you have proof of posting it is impossible to prove how much you sent.

Keep records. If you're paying by credit card keep a note of the exact time of the order and ask for an order number. If you're paying by cheque make sure you fill in the details of the date, amount and payee's exact name in the stub – and keep it!

When a mail order arrives

Check everything carefully. If there is anything missing, contact the supplier immediately. If something doesn't work, make all the obvious checks (the fuse, etc), but don't try to repair it. If there's anything you're not happy with, don't use it – if you do, you could be deemed to have accepted it.

If there's a problem

Whether you bought it by mail or in a shop, the law says a product must be:

1. 'of merchantable quality' (that is, broadly speaking, it must actually work);
2. 'as described' (in the advert or in person – and this one criterion also applies when you're buying from a private seller, not a business); and
3. fit for the purpose for which it was sold or for the purpose you specified when you ordered it.

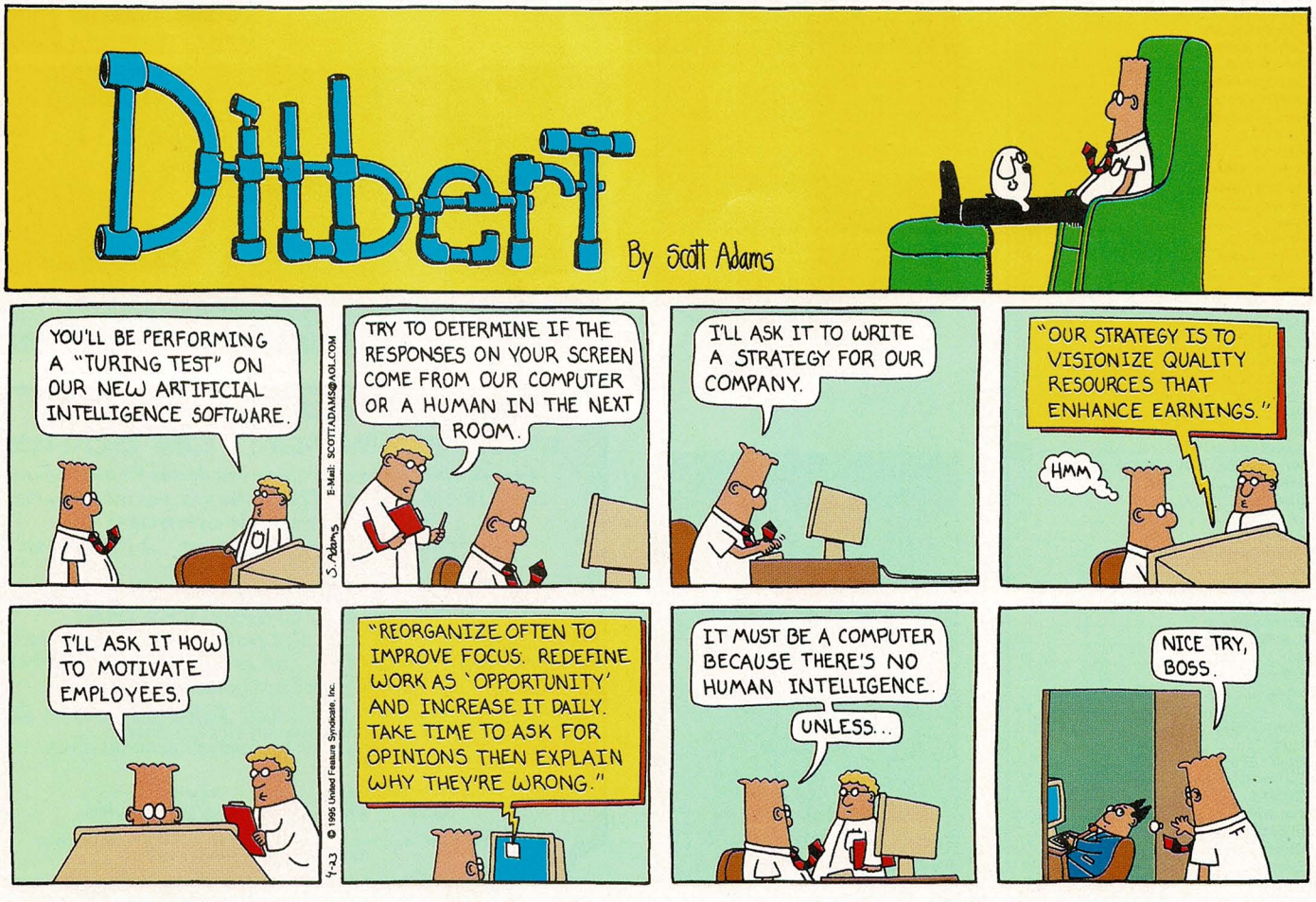
If it fails to meet any or all of these three criteria, then you are entitled to return the goods for a refund, receive compensation for all or part of the value, or get a replacement or free repair, depending on the seriousness of the defect. These are the 'statutory rights' that adverts always say are 'not affected' by any extra guarantees. The supplier cannot change or deny these rights.

How to complain

If you're not happy about something, always contact the supplier first and politely explain your problem. Most problems are sorted out at this stage with no fuss. But if yours isn't, put your complaint in writing, clearly stating your problem and including any relevant dates, etc, and send it to the manager or owner – ask for the correct name and job title. Give the supplier a reasonable time to reply – say, ten days or so.

If the problem is still not resolved, you may need to take some sort of legal action to enforce your rights. This need not cost you a lot of money. You should seek advice from a solicitor (ask about the free advice scheme) or from one of the following organisations (check in your local telephone directory):

- Citizen's Advice Bureau;
- Trading Standards Office (listed under your local council);
- Office of Fair Trading; or
- County Court (ask about the 'small claims procedure').


Dilbert
By Scott Adams
YOU'LL BE PERFORMING A "TURING TEST" ON OUR NEW ARTIFICIAL INTELLIGENCE SOFTWARE.
TRY TO DETERMINE IF THE RESPONSES ON YOUR SCREEN COME FROM OUR COMPUTER OR A HUMAN IN THE NEXT ROOM.
I'LL ASK IT TO WRITE A STRATEGY FOR OUR COMPANY.
"OUR STRATEGY IS TO VISIONIZE QUALITY RESOURCES THAT ENHANCE EARNINGS."
HMM
I'LL ASK IT HOW TO MOTIVATE EMPLOYEES.
"REORGANIZE OFTEN TO IMPROVE FOCUS. REDEFINE WORK AS 'OPPORTUNITY' AND INCREASE IT DAILY. TAKE TIME TO ASK FOR OPINIONS THEN EXPLAIN WHY THEY'RE WRONG."
IT MUST BE A COMPUTER BECAUSE THERE'S NO HUMAN INTELLIGENCE.
UNLESS...
NICE TRY, BOSS.
E-Mail: SCOTTADAMS@AOL.COM
S. Adams
© 1995 United Feature Syndicate, Inc.
4-23

MACFORMAT CLASSIFIED

01225 442244
Call the Mac Format Team

ADVERTISING RATES

£20 + VAT per single column centimetre (4 column page).
Discounts offered on series bookings.
Spot Colour 10%

Classified
MAC FORMAT,
Beauford Court.,
30 Monmouth Street,
Bath, Avon BA1 2BN

We accept cheques for payment

Access VISA

CLASSIFIED CLASSIFIED

Shareware & PD for the Mac & Newton

No set disks - you choose what you want. For free 60+ page A4 catalogue write to:

Stormont Software,
9 Reaville Park,
Belfast BT16 0AR
or call:
01232 484021

ADVERTISERS INDEX

Advanced Data Care 48
Archers Translation 144
Arm Chair Travel 11
Burgess Video 100-101
Call Haven 18, 26-27
Canasta 143
Casuti....144
CD International 143
Claris 7
Computer Capability ....IBC
Computer Warehouse 14-17
Dabs Direct Ltd....92-93
Direct Connections 55
DNA Computer Services Ltd 143
Emerald Creative Technology Ltd 110-111
Future Music....112
Future Net 46
Gasteiner Technologies Ltd 83
Harlequin Training 142
Harwoods Computers 32-35
Holdens 59
Honeylight 142
Hysazi Computers 143
Inkwell 142
KPL....142
Mac Magic 77
Mac Mania 142
Mac Pow 143
MacGold 133
Macline 38-41
Mactrix 67
Mapej 143
Maxis....137
Megasoft Computers Ltd 142
Morgan Industries UK Ltd 137
Mr Memory 137, 143
Mygate Ltd 91
.net 94
.net Directory 88
Network Analysis Ltd 142
PC Guide 116
Performance Direct 20, 23
Power Computing 55
Print Revival 142
Ramic Engineering 144
SFX....103
Softline Distribution ....IFC, 3
Solwise 143
SRS....109
Stormont Software 142
Tecs Ltd....143
The Mac Zone 68-69
The Type Marketing Ltd 144
Themis (UK) 142
Time and Space 109
US Robotics 42
Western Connections 142
Zone UK 47

Inkjet REFILL KITS

SAVE MONEY

For All Makes and Models of Inkjet & Bubblejet Cartridges
Outstanding Print Quality at a Fraction of the New Cost!

ALSO:
Comprehensive Range of New Cartridges

LASER TONER CARTRIDGES
REMANUFACTURED & NEW

ALSO:
Toner Refill Kits
Drum & Developer Units
Fax & Copier Cartridges

FULLY GUARANTEED

SEND FOR BROCHURE OR FOR A QUICK RESPONSE:

TEL: 01883 330333
FAX: 01883 330888

THE PRINTER SUPPLIES SPECIALISTS
THEMIS
ENVIRONMENTALLY CONSCIOUS
THEMIS (UK)
11-13 GODSTONE RD
CATERHAM, SURREY
CR3 6RE

PRINT REVIVAL

INKJET REFILLS

E.G: HP DESKJET £1.80 HERE'S HOW!
* OUR KITS CONTAIN RE-USABLE INK INJECTORS WITH SAFETY NOZZLES
* FIRST KIT CONTAINS EVERYTHING NEEDED INCLUDING INK
* AFTER THE FIRST KIT YOU ONLY NEED TO BUY BULK INK
* SIMPLE ONE MINUTE OPERATION, NO MESS, NO FUSS

TOP QUALITY INKS MANUFACTURED TO HIGHEST SPECIFICATION
* SHARP SOLID BLACKS AND BRIGHT, CRISP COLOURS

OUR KITS REFILL OVER 170 PRINTER MODELS
COLOURS: BLACK, CYAN, MAGENTA, YELLOW, RED, BLUE, GREEN, BROWN

	INITIAL KIT	NO. OF REFILLS	BULK INK	NO. OF REFILLS
HP DESKJET	£15.85	5	£45.00	25
HP HIGH CAPACITY	£19.95	4	£64.00	16
CANON BJ10	£12.99	3	£34.00	15

All prices include V.A.T. and 1st Class Postage
REMEMBER OVER 170 PRINTERS SUPPORTED, SO CALL US FOR A PRICE FOR YOUR PRINTER

REMANUFACTURED INKJET CARTRIDGES

* TOP QUALITY AND PERFORMANCE GUARANTEED
* SAME PRINT YIELD AS ORIGINALS
* FULLY PRINT TESTED BEFORE DESPATCH
* WHY PAY A LOT MORE FOR NEW CARTRIDGES?

HP HIGH CAPACITY £13.50
HP DESKJET £8.99 CANON BC01 £11.99
INC. VAT & DELIVERY

WANTED: USED INKJET/BUBBLEJET CARTRIDGES
* MUST BE ONCE USED ONLY * ANY QUANTITY CONSIDERED
WE PAY UP TO £5 EACH. RING US FOR MORE DETAILS

PRINT REVIVAL, DEPT MF, 152 ENTERPRISE COURT, WITHAM, ESSEX CM8 3YS
TEL: 01376 511288 OR 01376 520628
FAX: 01376 511232
TRADE ENQUIRIES WELCOME

Access VISA

REMANUFACTURED TONER CARTRIDGES & INKJET REFILLS

THAT DON'T COST THE EARTH

Tel: 01873 854913
Fax: 01873 858040
Access VISA
Inkwell, 8 Brecon Road, Abergavenny NP7 5UG

MAC REPAIRS

- **Apple Authorised Service Provider** (Warranty Honoured)
- Same Day & Next Day On Site (No Maintenance Contract Required)
- In House ***Free Estimates***
- While-U-Wait
- Collection and Delivery
- Data Recovery ***Free Estimates***
- Memory & Hard Disk Upgrades
- Component Level Repairs
- Rentals
- Networking
- Laser Printer Service
- Maintenance Contracts
- Software & Hardware Training
- Second User Hardware ***With Warranty***
- ***Established 1986***

1 Parkgate House
Broomhill Road
London SW18 4JQ
Tel: 0181-871 5009/4187 ■ Fax: 0181-871 4188

Honeylight COMPUTERS LTD

MacMedia
DTP & COLOUR BUREAU

TYPESETTING
PAGE MAKE-UP
LINOTRONIC OUTPUT
FILM & BROMIDE
COLOUR & MONO SCANS
COLOUR PROOFING
COLOUR SEPARATIONS
MAC/IBM DISK PROCESSING & CONVERSION
FONT SUPPLIER
MODEM LINK

Mac Disk to 4-Colour Sep. Service

109 BLACKFRIARS ROAD LONDON SE1 8HW 0171-401 8579/80

MEGASOFT COMPUTERS LTD

MAINTENANCE IS OUR BUSINESS AND COMPONENT LEVEL REPAIRS OUR SPECIALITY

FOR ALL YOUR COMPUTER NEEDS

USED ITEMS FOR SALE

Various monitors 17 - 21"	*from £65*
Hard Disks	*from £30*
8-Bit Video Cards	*from £39*
Network Cards	*from £45*
Mac Plus, Keyboard & Mouse	*from £129*
SE 1/20 Keyboard & Mouse	*from £165*
Mac IIX 4/80 CPU	*from £249*
Mac LC 4/40	*from £150*
Apple Portable 1/40 (M5120) with mains/battery carry case	*£150*

FOR ALL YOUR COMPUTER NEEDS

WE BUY AND SELL CPU's, MONITORS, PRINTERS & SCANNERS.
CALL US ON:
(01734) 452003 or (01734) 420400
Authorised Reseller
Credit Cards & American Express Welcome
Card surcharge applies

data transfers to CD

WESTERN CONNECTION

from £35

tel: 0171 262 8707
fax: 0171 224 8997
mobile: 0370 300 616
technical: 0831 121917

PROBLEMS COMMUNICATING? TALK TO US

PortShare™ Pro/Lite (£145/£70)
❀ Share any serial port with any Mac on your network
❀ Access shared devices via virtual ports

LineShare™ (£90)
❀ Share a line between fax and data comms
❀ Run AppleTalk Remote, fax receiver and terminal emulators at the same time

Problems developing Mac software? Talk to us

Metrowerks CodeWarrior Gold/Bronze (£270/£65): C/C++/Pascal compilers for 68K and PowerPC
ScriptWizard (£60): Editor/debugging tool for AppleScript.
Mac Source CD (£27): Programming tools, samples and utilities
HyperStacks CD (£27): Stacks and scripting tools
Newton Toolkit (£399)

NEW CDs! £27 EACH

Infomac V CD: 2 CDs with about 15000 files from the net archives
Apprentice 2 CD: 600 MB of source code and tools
Destination: Internet CD: 500 MB of Internet tools and information

New! MultiTech 2834zdx modem **(£240):** a full BABT-approved **v34** modem (28.8K data/14.4K fax)

Communications *solutions* from **NETWORK ANALYSIS LTD**
sales@network-analysis-ltd.co.uk

Prices do not include VAT
Mastercard/Visa accepted
01203 419996
01203 690690 (fax)

Internet Training

Want to learn to surf with the best?
Want to be one step ahead in the race to provide and communicate information over the Internet?

Harlequin Training, the UK's leading specialist training company, offers a unique one day hands-on course that covers all aspects of the Internet, including how to create your own World Wide Web pages.

For prices and information call James or Bridget at Harlequin Training (0181) 960 9400
Email: sales@harlequi.demon.co.uk

INTERACTIVE ADULT ENTERTAINMENT ON CD-ROM

A series of short movies, where you decide what happens.

OVER 18 ONLY • PRICE £29.99 INC VAT, POSTAGE & PACKING

System requirements:
❑ Windows 386 PC or higher ❑ Macintosh
Both with a CD drive

Mail to: **KPL INTERACTIVE** Dept RP1,
PO Box 664, Croydon CR9 2HA
Please make cheques and postal orders payable to:
KPL INTERACTIVE and cross A/C payee **ONLY.**
Credit Card holders:
CALL: 0181-665 1041 OR FAX: 0181-684 2523
THIS OFFER IS SUBJECT TO AVAILABILITY.
PLEASE ALLOW 28 DAYS FOR DELIVERY. COMPANY REGISTRATION No 17045424

Access MasterCard VISA

18 **Proof of age required. We do not condone or supply illicit hard core material**

WE CAN TRANSFER YOUR DATA BETWEEN AMIGA, CPC, PCW, BBC, PC, MACINTOSH AND APPLE II FORMATS.

3"/3.5"/5.25" disks.
Text scanning.
Details (SAE please)

MAPEJ (MF)
Meadow View, Quinta Crescent,
Weston Rhyn, Oswestry,
Shropshire SY10 7RN
Tel: 01691 778659
Fax: 01691 777638

Buy and Sell

Full range of Apple Mac Systems, Monitors, Hard Disks, Memory, V. Cards etc.
Special Offer: Genuine Apple Keyboards
2nd user Extended £49.00
Standard £42.00
Mouse II £16.00
Mouse I (new) £15.00

Memory Wanted

Hysazi Computers Ltd
355a Barking Road, East Ham, London E6 1LA
Tel: 0181 471 1984 Fax: 0181 470 2551
Prices exclusive of VAT and delivery
Offers subject to stock availability

* REPAIRS *

SEND US YOUR DEFECTIVE PART
WE WILL SEND YOU A
PRE-REPAIRED REPLACEMENT

ANY FLOPPY DRIVE*£75*
KEYBOARDS FROM*£25*
MICE*£15 *FUSERS*£85*

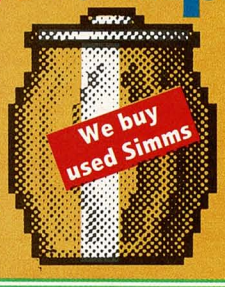
* TECS LTD *
0181 776 8060

MacPow!
Shareware for the Macintosh
20,000 titles
Possibly the largest source of postal shareware titles in the UK today (updated weekly).
Our disks are priced from £2.50 to £3.75
Free Monthly Prize Draw
Same day dispatch on all shareware orders
HD disks from as little as £2.50 per disk
Free 780 Page Disk Encyclopaedia on Request
96 John St. Brierley Hill. W Midlands DY5 1HF
Tel 01384 481728 - before 9.00pm

TheMemoryDump

Give us your used computer memory and we'll offer you the very best prices.

Avoid disappointment – call today for a price. Telephone us now on 014 83 799 923



STRANGEWAYS
BULLETIN BOARD
FULL ACCESS

Over 10 Gigs of Shareware
No Questionnaires
Just Straight in Games
Over 500 Doom 1, 2 Levels & Utils
Business, Hobbies, Security
Mod, Voc, Mid and Music Utils
Emulators, Raytracing, Windows
Over 28,000 programs online
Gigs of GLAMOUR Gifs
On-Line Help and Solutions
On-Line Games
Multiuser Chat up to 10 people
Speeds up to 32bis MNP5
New Files Added Daily
Full Access on First Call
Much too Much to Mention

THE MOTHER OF ALL BULLETIN BOARDS!

BBS: 0891 408040 VIEW 0161 708 9099

CALLS CHARGED AT 39P PER MIN (CHEAP RATE), 49P PER MIN ALL OTHER TIMES.
C.D. INTERNATIONAL, PO BOX 107, MANCHESTER M7 3WZ

Data/Fax/Modems

Apple MAC Software To suit our range of external fax/modems we can now supply cables and software for the Apple Macintosh. The software supplied is called MacComCentre, a combined package with both data comms and fax capability. MacComCentre Fax represents the latest technology in communications software design and fully conforms to the standard Macintosh user interface. It is to your modem what the System Folder and Finder are to your Mac copmputer. Your modem will not operate without communications software as your computer will not function without its operating system. MCC Fax allows you to utilise all of the features designed into your modem. The data mode of MCC will operate at speeds of 300bd to 57600bd. Additionally, MCC incorperates features designed to exploit hardware error correction, such as V.42 or MNP.

Add £5.95 Carriage & 17½% VAT. Major Credit Cards taken with a 1½% surcharge.

	V22bis + Fax 2400bps Data 9600bps Fax	V32bis/MNP+Fax 14,400bps Data 14,400bps Fax	V34/MNP+Fax 28,800bps Data 14,400bps Fax
Pocket Uses MAC Power	M9624P - £65	M1414P - £125	M1428P - £179
External Mains Powered	—	M1414E - £90	M1428E - £169

Prices include Mac cables and software.

Fax Features MCC allows the user to transmit documents to remote fax machines or fax/modems. MCC converts documents stored in a variety of formats to a standard fax format for transmission. Documents may be stored as text, TIFF, PICT or MacPaint files. TIFF files may be either compressed or non-compressed black and white (Class B Bilevel) files. MCC also allows you to combine text and graphics on a single fax page. Using the MCC print driver (Chooser document) in conjunction with the MCC Manager (INIT/Startup document) you can directly send a fax from within any Macintosh application.

Please Call our Fax-On-Demand System on **01482-444589** from your Tone-Phone to request more details to be sent **direct to your fax-machine - 24 hours a day -** *or alternatively phone for our gadget-packed catalogue on 01482-473899.*

Solwise Ltd,
MACF, Princes Court,
Princes Avenue
Hull, HU5 3QP Tel 01482-473899 Fax 01482-472245

PROHIBITED from direct or indirect connection to public telecommunication systems unless approval may be taken against anyone so connecting this apparatus. DO NOT!

REPAIRS

Apple Authorised Engineers
LONDON QUICK CALL-OUT
0831 295 099 AND 0385 261258
DNA COMPUTER SERVICES LTD
for INSTALLATIONS, MAINTENANCE CONTRACTS, ON-SITE TRAINING, NETWORK SOLUTIONS and DATA RECOVERY
Call 0181 742 3524

CD-ROM
Double Speed External
CD-ROM Drive ACD-300

Canasta
01202 780881
Prices are exclusive of VAT and delivery.

aiwa
Fully featured Hi-Fi CD player AND SCSI CD Drive

£149

- 275ms seek time
- 256KB data buffer memory
- Illuminated LCD operation panel
- Front disk loading system with motor driven tray
- Supports KODAK Multisession Photo-CD Standards
- MPC level 2 compatible
- SCSI-2 Interface

As reviewed in MACFORMAT

Lorne Park House, 1 Lorne Park Road, Bournemouth, Dorset BH1 1JJ

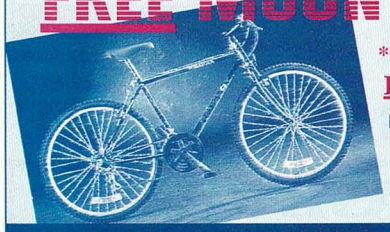
CRAZY 1995 BITSTREAM OFFER

All this for just £685

- WHOLE BITSTREAM LIBRARY OF 1085 FONTS
- FREE 160 Optifont Headline Fonts
- FREE Linotype/Adobe Unlockable ROMS

PLUS

FREE MOUNTAIN BIKE*



*or £749 with FREE Apple CD300E

DON'T NEED A MOUNTAIN BIKE OR CD PLAYER? – PLEASE ASK FOR OTHER OFFERS INCLUDING OUR TIME TO PAY PLAN

COUNTY TYPE

PHONE OR FAX FOR CATALOGUES AND DETAILS

0242 256711

The LOC System

PROTECT AND SECURE COMPUTERS, VIDEOS, FAXES, TELEPHONES AND TYPEWRITERS.

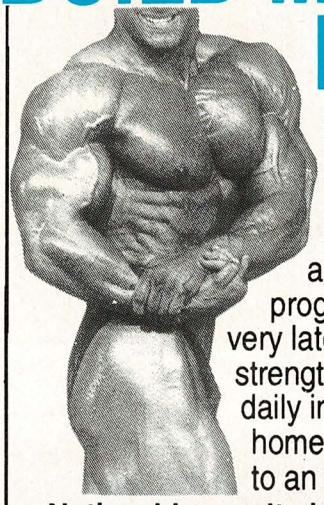
Ramic Engineering Co. Ltd.

96 Upper Wickam Lane, Welling, Kent DA16 3HQ

Tel: 0181 855 7122

Fax: 0181 854 8801

BUILD MUSCLES FAST!



NEW. Fast and effective way to build muscles and strength!

MUSCLE DYNAMICS is a 12-week body building programme based on the very latest scientific advances in strength training. Just 35 minutes daily in the privacy of your home will put you on the road to an amazing physique.

Noticeable results in 28 days guaranteed.

Send for FREE Information Pack.

MUSCLE DYNAMICS, P.O. BOX 70, DOUGLAS, IM99 1EH.

Tel: 01624 801023 (24 hrs)

MUSCLE DYNAMICS, P.O. BOX 70, DOUGLAS, IM99 1EH

Yes! I want to build muscles fast. Please rush me a FREE Information pack!

Name..... BLOCK

Address..... CAPITALS

..... PLEASE

..... Postcode .....

MCF (A stamp for reply appreciated)

MAKE YOUR PC MULTILINGUAL WITH ARCHERS TRANSLATION SOFTWARE

ENGLISH TO/FROM

● French ● German ● Spanish ● Italian ● Portuguese ● Dutch ● Danish ● Swedish ● Norwegian ● Russian ● Japanese ● Chinese ● Hebrew ● Etc

* Ideal for business, office, college, home. Easy to use.
* Incredibly accurate (up to 90% - user dependent)
* Full sentence or full text translations
* **General Dictionary** and **User Dictionary** for creating customised word bank.
* Also subject specific **Microdictionaries.**
  Banking, Legal, Finance, Computer, Chemical, Aviation, Medical, Narcotics,

THERE IS MORE TO TRANSLATION SOFTWARE THAN BUYING OFF-THE-SHELF

CALL THE LEADING LANGUAGE SPECIALISTS FOR ADVICE ON PRODUCT CHOICE

01494 - 53 77 55

OTHER PRODUCTS:

* Language learning: CDs, software, videos, tapes, books
* Word Processing packages
* Fonts, Templates
* Dictionaries: CDs, software, books
* Foreign language keyboards
* Voice response systems
* Complete PC systems - Hardware and software for language projects.

SERVICES:

* Training in the use of machine translation software
* Customising of translation software for clients
* Development of subject specific microdictionaries: engineering, construction, information technology etc
* Manual translations by qualified translators in **Any Language**

Archers Translation Services Ltd.

203-205 Desborough Road, High Wycombe, Bucks HP11 2QL
Tel: 01494 537755 Fax: 01494 537088
* Language Products * Software * Manual translations (Any Language)

Future PUBLISHING

Wanted:

Art Assistant

MACFORMAT, Britain's best-selling Macintosh magazine, is seeking a full-time Mac-based Art Assistant / Designer.

The Art Assistant is responsible for the layout of a substantial proportion of the magazine, plus associated image manipulation and graphic design tasks. You will also be expected to take a share of the magazine's general administrative work, including maintaining our picture files among other duties to be determined from time to time.

The main requirements for the post are an excellent grasp of the software we use to produce the magazine – particularly *QuarkXPress* (version 3.31), as well as *FreeHand* (version 5) and *Photoshop* (version 3) – and a flair for magazine design. Some commercial magazine design experience would be an advantage, as would some knowledge of the Macintosh. Salary will be dependent on age and experience.

You will be working under our experienced Art Editor as part of a lively team, in a dynamic company based in the beautiful Georgian city of Bath. MACFORMAT is expanding steadily, with more and more pages to lay out, so you will need to be able to work quickly and accurately as well as creatively. The magazine's priority is communicating information to the reader clearly and accessibly, so we are not primarily looking for someone with a background in fine arts or expertise in computer graphics. This position would suit a recent art college graduate.

Apply with full CV and examples of your work to Nichole Hunt at the address below:

30 Monmouth Street • Bath • Avon • BA1 2BW

MACFORMAT

Editor ..... Alex Summersby
Production Editor ..... Gary Tipp
Production Assistant ..... Eva Lauer
Technical Writer ..... Derek Smith
Staff Writer ..... Richard Hill

Art Editor ..... Mark Nottley
Art Assistants ..... Emma Thompson, Traci Rochester

Contributors ..... Jim Chandler, Simon Cox, Marcus Dyson, Mike Goldsmith, Nick Harper, Marcus Hawkins, Martin Jones, Cliff Joseph, Brian Larkman, Rod Lawton, John Lewis, Rich Longhurst, Phil Moore, Paul Pettengale, Michael Prochak, Ian Waugh, Garrick Webster

Photography ..... Stuart Baynes
'Next month' illustration on this page by Brian Larkman, based on an original photograph © 1995 Paul Devereux
'Mac Answers' cartoons ..... Arnott
Shareware illustrations .... Richard Hill (what, him again?)

Production Technicians ..... Jon Moore, Liz Cheney, Ollie Gibbs, Mark Gover, Brian Hook, Chris Stocker, Jason Titley, Jon Wakeham, Simon Windsor

Future Publishing Mac Systems support
Avi Abadi, Christian Goddard, Nick Harvey

Production Manager ..... Richard Gingell
Production Coordinator ..... Craig Broadbridge
Ad Design ..... Scott Purnell

Publisher ..... Jim Douglas
Group Publisher ..... Jane Richardson
Managing Director ..... Greg Ingham
Circulation Director ..... Sue Hartley
Chairman ..... Nick Alexander

Advertising

Advertising Manager ..... Jackie Garford
Deputy Ad Manager ..... Belinda Symington

Printed in the UK by TPL (UK) Ltd

Copyright © 1995 Future Publishing Ltd. All rights reserved. No part of this publication may be reproduced without written permission from the publisher.

■ Standard 12 month subscription rates, inc postage: HD disk edition: UK £47.88, Eire £59.88, rest of world £79.88; CD-ROM edition: UK £59.88, Eire £71.88, rest of world £91.88. Subscription hotline 01225 822511 (8.45am–6pm); subscription enquiries 01225 442444. Fax 01458 274378 (24 hours).

■ MACFORMAT is an independent journal, not affiliated in any way with Apple Computer, Inc. The Apple logo is a registered trademark of Apple Computer, Inc. 'Apple', 'Macintosh', 'Macintosh Performa', 'Power Macintosh', 'Mac' and the Mac and Mac OS logos are trademarks of Apple Computer, Inc. All trademarks and copyrights in this issue are recognised, and are acknowledged where possible. If we have failed to credit your copyright, please contact us – we will be happy to correct any oversight.

ABC **MACFORMAT's circulation is independently audited by the Audit Bureau of Circulations**

Average circulation per issue, July–Dec 1994:

40,146

The small voice of dissent – the Tiny Zone!

Hello and welcome again to the Tiny Zone, the section of MACFORMAT that speaks up in its own small way. A few months ago MACFORMAT looked at PowerMacs, and now it's PowerBooks and such like. This means we've now covered Apple's entire current range. Well, almost. There's two remaining Performas, the ageing 475 and the new but (because it isn't PowerPC-based) already obsolescent 630. There's the revived Quadra 630, the 68040-chip-based Mac that Apple brought out after they said they weren't going to do any more non-PowerPC machines. Oh yes, and there's the Workgroup Servers, which are basically PowerMacs designed to run networks. And that's your lot, all neat and logical and understandable to the poor punter looking for the right machine. Unless you happen to do your pre-purchase research very thoroughly and read any American Mac magazines, where you'll find different models like the 575 – or even discover that for a change we have something they don't (the 630s). But fair enough. Different markets, different needs, quite logically demand different configurations or models. It really makes a lot more sense than some other decisions, like axing the PowerMac 7100DL (the best-value Mac ever), or like bringing out LC Macs in the first place. I mean, why bother? Macs have always come with extras like built-in networking, sound capabilities and all the rest of it, to make them more costly than PCs, and then to save maybe £50 Apple go and put in a Central Processing Unit originally developed to control washing machines, with no FPU, meaning much less processing power for proper computing – cripplingly slower spreadsheets, no serious graphics, and so on. So, yes, Apple are moving too fast and leaving some loyal users behind. But the sooner the remaining LC-chip-based Macs are dumped – and, sadly, that includes most of the current PowerBooks – the sooner the Mac range will stand for real computing power again.

NEXT MONTH

Image magic

You can't always believe what you see – Macs can transform images and make the incredible real! Next issue we look at the latest image-manipulation software and begin a new series showing you step-by-step how you can do it yourself, even without the pricey programs...

'Clip photos'

Ready-to-use, royalty-free, high-quality photos on CD to give your work a professional touch – do you have to pay as much as £290 each, or can you match the quality for as little as £12?

Graphics tablets

Can they make creating Mac graphics as easy as drawing on paper? We put them to the test!

PLUS The 'X-files' explained, part 2 – what do all those Extensions really do? ■ The word processor that writes in any alphabet (this time for sure!) ■ CD-ROM safari! Animals on CD-ROM ■ The latest news, practical how-to's and authoritative reviews.

ARE YOU A WINNER?

Back in MACFORMAT 22 we gave you the chance to win a DynaTek CDS 654T quad-speed CD-ROM drive, the fastest of all the CD drives in our tests, worth £580. The two lucky winners are J Craig of Lhanbryde, Moray, and Neil Brown of Newtownards, Co Down, Northern Ireland.

In MACFORMAT 23, the prize on offer was a copy of the brilliant new version of the industry-standard illustration program, *Illustrator 5.5*, courtesy of Adobe. The three lucky winners were Steve Page of Douglas, Isle of Man, Martin Spenceley of Verwood in Dorset, and PM Wareing of Bidford on Avon, Warwickshire. There were 100 exclusive *Illustrator* T-shirts for runners-up, but if you think we can list 100 names in a box this size you must think this is Tiny Zone. If you really want the names, send us an SAE. If you won a T-shirt, you've probably already got it. Well done!

MACFORMAT 28 goes on sale on Thursday 3 August

Available with high density floppy disk or CD-ROM. Ask your newsagent to save you a copy or see the insert in this issue for our special subscription offers

Win a Newton 110 MessagePad

Not just an electronic notebook, it's a Personal Digital Assistant! We have two to be won, with Connection Kit and software, worth £530, courtesy of The Mac Zone!

Admit it: you're intrigued, aren't you. You might have heard sarcastic comments about early model Newtons' handwringing recognation or 'yuppie accessory' image, but people used to scoff at the portable phone and the Filofax too, when they were new ideas. Now you've read our review of the Newton on page 56 and you have to agree, these Personal Digital Assistants sound pretty good really. But maybe you can't see yourself forking out the readies for one. Well, you could win one of two Newton 110s right here, thanks to The Mac Zone.

The Newton 110 has all you need to stay in touch, organise your life and help make sense of your ideas. Built-in applications include a notepad, a to-do list, a datebook and a name file. It's as easy to use as paper and pen, only interactive. It can store and organise names, addresses and phone or fax numbers; you can write by hand directly onto the screen and (after you've 'trained' it to interpret your handwriting) it can transform your input into clear text, and even tidy up your sketches. What's more, a Newton can assist you in ways a paper notebook never could: for example, write 'fax Derek' and, on command, the Assist function will draw up a fax cover sheet, find Derek's fax number and send the fax!

The handwriting recognition is vastly improved, with useful letter-by-letter and numbers-only modes, plus a dead handy 'deferred character recognition' option: store your notes in your own handwriting, then convert them into text later – no waiting for the process to catch up with you!

The Newton MessagePad 110 is based on a RISC processor (the same type of chip as PowerMacs), with 4Mb of ROM and 1Mb of RAM. The battery has a life expectancy of up to 50 hours continuous use, and there are lots of optional extras you can add on later, like a fax-modem or PCMCIA cards for added data storage, available from many retailers including this competition's sponsors The Mac Zone (tel. 0800 393696).

The prizes on offer are two Newton 110 MessagePads, complete with Mac Zone's *Newton Extras* software, plus *Dell Crossword Puzzles and other games*, *Columbo's Mystery Capers* (who needs Nintendo, eh?), a retractable 'pen'-type stylus, and a Connection Kit, so you can hook your Newton up to your desktop Mac and transfer, back up, view, synchronise and edit data. (Or you can opt for a Windows Connection Kit, if you really want your Newton to talk to PC-compatibles instead.)

The retail value of these excellent bundles is around £530, and we have two to be won, courtesy of The Mac Zone. Just answer the three simple questions below and send us your entry on a postcard or the back of a sealed envelope. The closing date for receipt of entries is Friday 11 August.

The Rules

Employees of The Mac Zone, Apple Computer Inc, Future Publishing Ltd or associated companies, and their families, are not eligible to enter. Multiple entries are not allowed, unless accompanied by a nice message pad and pen that we'll enjoy using round the office. The editor's decision is final, there is no cash alternative, and no correspondence will be entered into. Please state if you don't want your name added to a mailing list.

THE QUESTIONS

1. The Newton MessagePad 110 has how much RAM?
(a) 1Mb
(b) 2Mb
(c) 110Mb

2. Which of the following features does the Newton MessagePad 110 *not* include?
(a) Letter-by-letter, numbers-only and 'deferred character recognition' options
(b) LocalTalk and standard 8-pin RS-232/422 serial ports
(c) Integral cellular phone and voice-activated answering machine

3. How is the Newton MessagePad powered?
(a) Four AAA alkaline or rechargeable NiCad batteries
(b) The screen doubles as a photovoltaic solar panel
(c) The pressure of the stylus charges up an inertia-storage flywheel

Easy, right? If you need any help, just turn to our review on page 56. Send your answers on a postcard or sealed envelope (remember your name and address) to: 'Newton handspringing recollection' compo, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.

0800 765432

16GB turboDAT £798

inc Retrospect 2.1, installation kit

MacUser Awards 1993 WINNER

Best Buy MacUser

4-16 triple DAT £948

tape	external	media
4-16 triple	£948	£16
4-16 Turbo	£798	£16
4G Turbo	£698	£16

Since our DAT was a 5-mouser best buy, we've doubled the buffer size for even smoother backup, doubled the speed and doubled the capacity! No wonder it won the best peripheral category of the MacUser awards! Full compatibility with DDS1 standard drives (2GB and 2-8GB). Power Macintosh optimised. The even faster triple DAT is capable of over 35MB/minute. Choice of enclosures. Retrospect software, tape, cleaning tape & cables included.

BACKUP BY DANTZ RETROSPECT

MacUser

1GB disk £368

external, inc UK installation kit

hard	disks	seek	int/ext
500	12		£128/188
700	12		£188/258
1000	10		£298/368
2000	9		£598/658
4000	9		£898/958
9000	10		1578/1678

seek times are average, "effective" seek times are all faster. All drives are fast SCSI2.

Lowest ever 1GB price!

Now's the time to retire that slow old 40-500MB drive. Our 1000MB drive outperformed every other 1GB drive in MacUser's gigabyte drive test. Yet none had a lower cost per megabyte.

Upright "F" enclosure option:

800MB pocket drive £688!

250&500MB & powerbook drives also available

wow!

230Mb Optical £378 with 5 disks £448

twins from £328

Twin drive mini-arrays, and fixed/removable combination drives. Order just one drive in the twin enclosure, and you're ready to upgrade for the cost of an internal drive...

Lowest ever price. Nearly double the capacity and transfer rate of a 128 drive. Full 128 compatibility with no performance degradation. Ask for our data sheet: "Choosing an optical drive". Power Macintosh & System 7.5 compatible.

Apple CD600e! *call*

prices with 1 disk	drive	media
200MB Syquest	£398	£58
270MB Syquest	£398/348	£44
230MB Optical	£378	£22
128MB Optical		£13
1.2/1.3GB MO	£1348	£58

98% of orders shipped from stock. All external drives have 90-270V power, twin 50 way SCSI, pushbutton ID switch, platinum grey "zero footprint" aluminium or upright ABS plastic housing. External drives include UK mains cable, SCSI system cable, terminator, software, 1 piece media. DAT drives also include cleaning tape.

Warranty: 1, 2 or 3 years. **Delivery**: £8 courier. **Prices exclude VAT.**

Payment with order by cheque, Access, Visa , Mastercard, Amex

Call free for product literature, or to go on our mailing list.

Sales 0800 765432 Enquiries 01392 444840 fax 01392 364345

Over 200 products including **MEMORY**, premium quality **CABLES** from £4, **MEDIA** including disk, tape and optical.

WAVE is a division of Computer Capability Ltd

8 Newbery Centre, Exeter Airport, Devon EX5 2UL

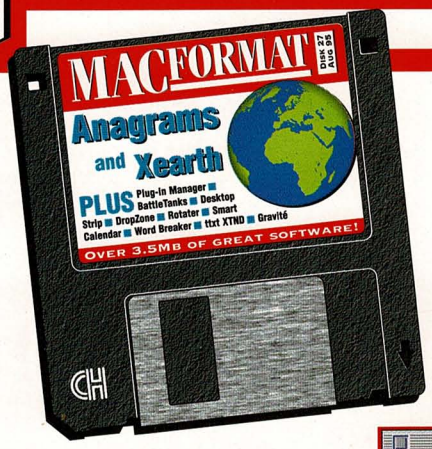
WAVE

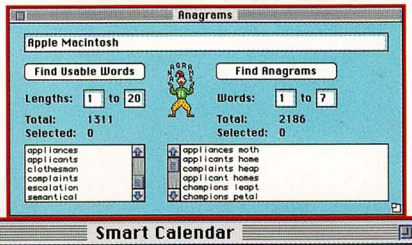
3.5Mb of great utilities, graphics and games!

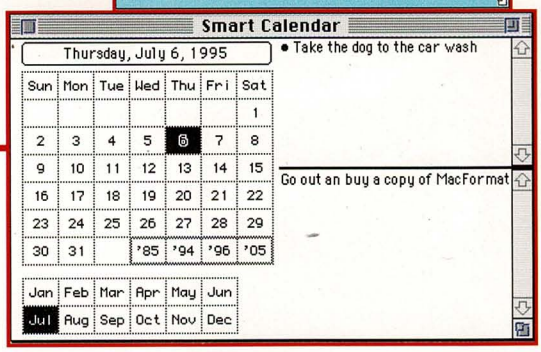
MACFORMAT

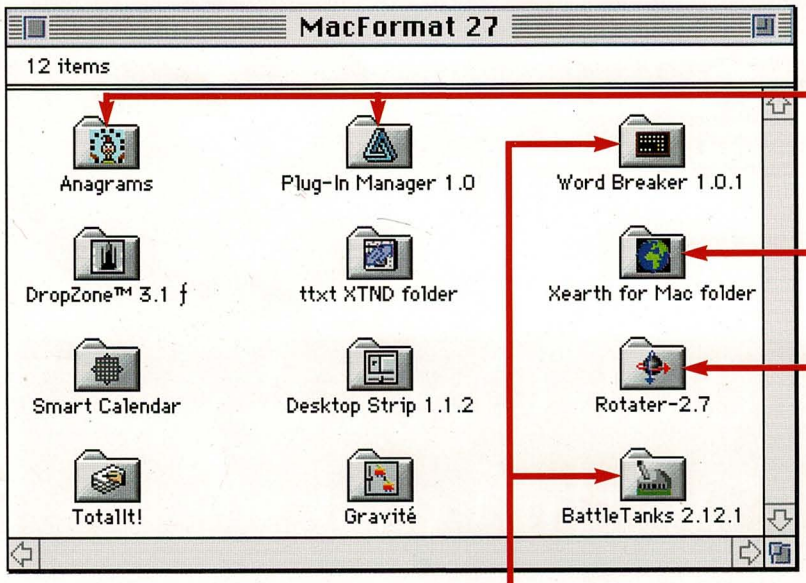
On the disk this month...

No less than 3.5Mb of top shareware this month to suit any Mac from a black and white Classic to a top end PowerMac! We bring you the most useful utilities, the most attractive graphics, and the most fun games.



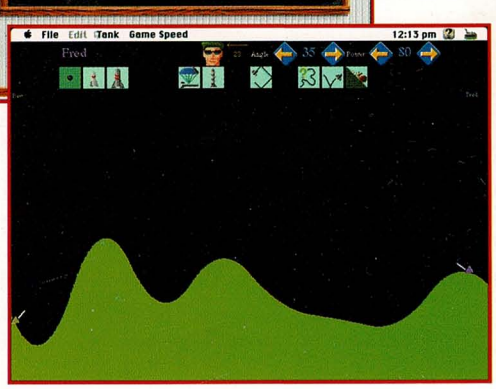


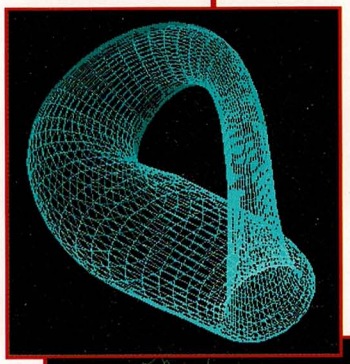

Smart Calendar
Thursday, July 6, 1995
• Take the dog to the car wash
Go out an buy a copy of MacFormat
Sun Mon Tue Wed Thu Fri Sat
1
2 3 4 5 6 7 8
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30 31 '85 '94 '96 '05
Jan Feb Mar Apr May Jun
Jul Aug Sep Oct Nov Dec

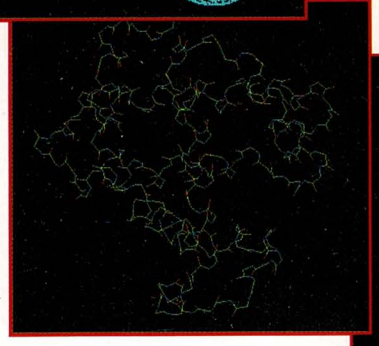


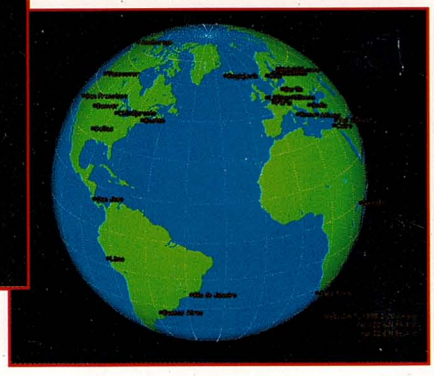
Utilities

Anagrams does just what the name suggests, creates anagrams, but best of all it's a doddle to use. *Plug-In Manager* will help you cope with all your plug-ins for programs such as *Photoshop*. *Smart Calendar* can keep all your appointments, including regular jobs that happen at set intervals. *DropZone* enables you to drag a file onto any application you own without cluttering your Desktop with dozens of aliases! *Desktop Strip* gives you quick access to the most useful functions on your Mac, while *ttxt XTND* enables you to create advanced *SimpleText* documents with ease.









Graphics

We have two fascinating graphics programs this month. *Xearth* can display the earth from any angle, and at any time of the day, as well as displaying the major cities. It can even rotate the earth at any speed you desire. *Rotater* enables you to create a three dimensional shape and rotate, or even spin it, on any axis. *Xearth* requires a PowerMac.

Games

Word Breaker is one of those rare games that combines a good idea with good implementation. The idea is to guess the hidden five-letter word by calculation and logic. *BattleTanks* is a wonderful implementation of the classic game where two players fire bombs at each other. This game brings it up to date with missiles and a whole range of other weapons.